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Canada Statistics, Dom. Bm. of

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DEPARTMENT OF  
TRADE AND COMMERCE



**A FACT A DAY ABOUT CANADA**

FROM THE

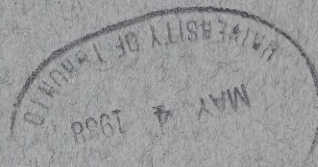
**DOMINION BUREAU OF STATISTICS**

AS SUPPLIED TO THE

**CANADIAN BROADCASTING CORPORATION**

DURING JANUARY 1937.

**THIRD SERIES**



Published by Authority of the HON. W. D. EULER, M.P.,  
Minister of Trade and Commerce.



## Contents

- |   |                                       |
|---|---------------------------------------|
| 93. A New Year's Resolution.                  | 109. Better Times, Fewer Crimes.      |
| 94. Canada's Trade with Salvador.             | 110. The Government Debt of Canadians |
| 95. Foil Wrappings.                           | 111. Our Coal Supply.                 |
| 96. Preservation of Ties.                     | 112. Canada 1937.                     |
| 97. The Longest Month.                        | 113. The Fashionable Age for Marrying |
| 98. Scrap Metal.                              | 114. Narcotic Drugs.                  |
| 99. Exegi Monumentum Aere Perrennius.         | 115. Accounts at the Country Store.   |
| 100. Golf.                                    | 116. Canadian Mining in 1936.         |
| 101. Rules of the Stork.                      | 117. Fitting the Job to the Person.   |
| 102. Dentistry.                               | 118. Our Business Interest in         |
| 103. Canadian Wines.                          | International Friendship.             |
| 104. Silk and More Silk.                      | 119. A Dollar Goes Farther Now.       |
| 105. Natural Increase.                        | 120. Craftmanship in Clocks.          |
| 106. Our Museums.                             | 121. New Hybrid Apples for the Northw |
| 107. Northward on the Prairies.               | 122. A Great Canadian Anniversary.    |
| 108. Farm Changes on the Prairies Since 1931. | 123. Canada's Trade with Australia    |

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Note:- A Fact a Day is broadcast over the Corporation's network immediately after the Canadian Press News broadcast.

James Muir,  
Editor.



A Fact a Day about Canada  
from the  
Dominion Bureau of Statistics

No. 93. Fri. Jan. 1, 1937 - A New Year's Resolution

Is it too late at this "eleventh hour" of the first day to make a New Year's resolution? There is one we can commend to all, old and young. Unlike most resolutions there is a good reason why it should date from January 1st. And even if you don't keep it for more than a few months it will have served much of its purpose. In short, if you are looking for a resolution, here is a real bargain.

Let us resolve to be careful of our health, especially during the next three months. Between today and the end of March there will be more sickness and death in Canada than during any other quarter of the year. At least this is what the record of past years leads us to expect. It is an especially dangerous time for influenza, pneumonia and diseases of the heart. Trouble so often starts when a common cold is not given proper care, and more serious complications follow.

Sickness brings suffering, death brings sorrow, both beyond measure. But even if we fail to consider the human values and think in terms of money alone, there is reason enough for resolving to take better care of ourselves and those about us. The cost of sickness in Canada is over \$200,000,000 a year, or more than \$50 for every person who is earning money. There are more than 100,000 Canadians sick on the average day, about 50,000 of whom are in hospitals. Much of the sickness arises out of carelessness; let us resolve to avoid it.

The information used comes from the Census and Vital Statistics Branches of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 94. Sat. Jan. 2, 1937 - Canada's Trade with Salvador

An interesting little country of Central America is the Republic of Salvador. Its coast line on the Pacific is 170 miles long, with a general breadth into the interior of a little over 40 miles. The whole country is about half the size of New Brunswick. The population is about one million and a half. The language is Spanish.

Salvador was part of the great conquest of Spain in America and continued under the rule of that European power until 1821 when the final break-up of its vast empire came. It then formed part of the United States of Central America until the dissolution in 1839. There were various abortive attempts at reunion but in 1921, the five republics, secure in the approval of the United States, formed a new republic of Central America.

It is a mountainous country, punctuated with volcanoes. A new one made its appearance in 1880 but has since almost disappeared. Much of the interior has an average altitude of 2,000 feet. There is a very fertile lofty valley, which is the most populous area. A British firm has built 100 miles of railway.

Coffee is the chief crop and the chief export. Many metals occur but are not yet seriously exploited, except in the Metapan district. Henequen is used in the manufacture of sugar and coffee bags. Coffee is what Canada gets mainly



from Salvador, and wheat is the chief item in the Canadian export, amounting last year to \$41,000 out of a total of \$60,000.

This information comes from the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 95. Sun. Jan. 3, 1937 - Foil Wrappings

Apart from the cellophane and the many varieties of paper that wrapped seasonal presents, there was one covering that made gay the appearance of many a gift. That was metal foil.

A piece of foil is purely and simply a piece of sheet metal. Paper is coarse and heavy by comparison. Tin and compositions of tin are still widely used but the leading metal in foil popularity is aluminium. It is generally rolled much thinner and has a gleaming sheen which gives it the look of precious metal.

For authentic tin foil, the metal comes mainly from the Straits Settlements smelters in pig form, almost 100 per cent pure. Aluminium, which quite probably came originally from British Guiana, comes to the rolling factories in coiled sheets. Flowing silvery sheets three-ten-thousandths of an inch in thickness are produced. The finishes are very beautiful and the favourite colourings are red, blue and gold. The metal is rolled for colour and many times again for embossing, printing, waxing and finishing. Then it is wrapped around everything from wax to cheese.

We import more than fifty thousand pounds of tin foil in a year and considerably more than twice that amount of aluminium foil from the United States and Great Britain. This would blanket a very large area.

Canada produces considerably more than is imported but as there are only one or two companies manufacturing foil their output is not made public, in accordance with practice.

This information comes from the General Manufactures Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 96. Mon. Jan. 4, 1937 - Preservation of Ties.

Most people have walked the railway tracks and while trying to regulate their pace to step on the ties, have noticed the black, oily appearance and tarry smell of the wood. Very few people think of the importance to themselves of these treated ties. The price of practically every commodity used in Canadian homes is affected by the cost of railway transportation.

If it were not possible to treat wooden ties to resist decay, the railway companies would be forced to adopt a substitute for wood. In 1912 for every 46 ties used there was only one treated but by 1935 for every 1.7 ties untreated there was one treated. The two principal preservatives in use in Canada at the present time are creosote and zinc chloride.

Research laboratories are experimenting with various chemicals and their reaction upon various woods. Their findings mean a great saving in the national and private budgets when one stops to think of the numerous wooden structures.

Some wooden ties are used untreated such as those made from tamarack and cedar, others such as yellow birch, hard maple and beech can only be used economically when treated. But Jack pine, lodgepole pine, red and white pine, spruce, Eastern and Western hemlock, Douglas fir and oak can be used either treated or untreated.

There were approximately four million treated ties placed in the tracks in 1935 at an average cost of over one dollar. There were nearly seven million ties untreated and the cost was something over 50 cents.

This information comes from the Transportation Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 97. Tues. Jan. 5, 1937 - The Longest Month.

How often we hear it said that January seems the longest month of the year! The days are short, the weather is cold, and there is not the busy anticipation of Christmas and New Year festivities that helps us through the same conditions in December. It is probably the month in which we spend most time with radio and books.

From public libraries this month we will borrow more than two million books, and there will be many to read that were given to us or our friends for Christmas. Those who live out of reach of a public library will often club together with their neighbours, and ask for the loan of a free package of books, or a "travelling library" as it is called, from their provincial capital. Last year there were about 5,000 packages of books supplied in this way, - more than half of them in Saskatchewan. But when all this distribution is counted, Canada is much behind the United States and Great Britain in organizing public library service.

In Prince Edward Island, and in some sections of British Columbia, it can almost be said that nobody is out of reach of a free public library, for here the people have developed modern library systems to serve the rural as well as the urban dwellers. This year gives promise of similar schemes being developed in other parts, and it may be that Canadians will eventually catch up with other countries in providing themselves with books. When this happens, perhaps January will not seem so long.

This information comes from the Education Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 98. Wed. Jan. 6, 1937 - Scrap Metal.

While a considerable number of people are burrowing feverishly in the Canadian cellar for minerals stored away by Mother Nature, other are busy on the surface gathering what we commonly call "scrap" or "junk". Anything from an out-of-date, sea-going vessel to an unreliable alarm clock is harvested by the junk dealer. Most of the scrap collectors are to be found around large shipping centres and there is in force today a shipping act legislation which covers the dealings of junk dealers.



Sorting out such a conglomeration and transporting it from one place to another, even across the seas to countries where the supply of certain metals is not sufficient to meet the demand, is quite a big business, as may be noted from the fact that last year Canada imported about \$700,000 worth of scrap metal and exported a quantity valued at \$2,500,000. Much of the scrap metal, of course, is used at home. Indirectly this large amount of trade in scrap metal reflects the prosperity of the country. When metals are expensive it pays to collect the scrap.

The largest item in the scrap metal which Canada exported was iron and steel. The value of it was over one million dollars and most of it went to the United States and Japan. The next largest item was brass, followed by copper, zinc, aluminium and platinum. Brass went mainly to the United States and Germany, copper to Germany and the United States, aluminium to the United Kingdom and Brazil, zinc to Japan and Belgium and platinum to the United Kingdom, Norway and the United States.

The foregoing is based upon a report issued by the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 99. Jan. 7, 1937 - Exegi monumentum aere perennius

Sometimes the child of an over-indulgent mother fails to measure up to the expectations of a more exacting father. Most of us have probably heard a mother excuse her youngster by saying, "You must not expect too much of him yet, -- after all he is still a baby". And though the child may grow into adult years, the fond mother may persist in thinking of him as "her baby" to the end of her days.

As with the mother and child, so it is with many Canadians in relation to their country. When someone points out to us a national shortcoming, the most frequent apology is, "O, yes, but Canada is just a young country". This is the reply when we are reminded how little we have set aside for advancement of learning and culture, for such institutions as libraries, museums, colleges and universities.

We can look at any one of several universities in the United States and see that each has received much more in the way of gifts and bequests for its support than all of the Canadian universities combined. Two or three of them were each given more last year to add to their endowment than all of our universities together have received in several years. Similarly in Great Britain. In the last five years (and poor years they have been) the British universities received almost as much in capital gifts as the Canadian universities have received in all the years since they were first established. Is it any wonder that our universities, in comparison have so little to offer in the way of scholarships, and other forms of assistance to research in the sciences and humanities.

Here, indeed, is an opportunity for Canadians to include a clause in their wills that will enable them to say with the poet Horace, "I have built a monument more lasting than bronze."

The foregoing comes from the Education Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 100. Fri. Jan. 8, 1937 - Golf.

Times have changed. The lowly shepherd tending his sheep used to play golf on the Scottish uplands and the grassy swards that border the sea. It was a game that the poorest might play. One may wonder, however, just how many Canadians, whose incomes are small, are able to play golf. Gone are the days when it was quite the proper thing to go round a course with a "cleek" only. A dozen clubs carried by a caddy is a common sight. Some players affect more than two dozen.

The ball has changed from the feather core covered with horsehide by the Scottish shepherd, to the "guttie". The game has improved, of course, and has become more popular, with the result that the factories have benefited. The output of supplies now runs up to about \$300,000 in a year at factory prices. That does not include golf balls, of which 80,000 dozen are manufactured in the Dominion and valued at close to one quarter of a million dollars. The imports of golf supplies are comparatively small, but the imported balls, practically all from the United Kingdom, run up to 45,000 dozen. However, the importation in recent years has been decreasing.

Golf has been much blamed, among other things, for the breaking of the Sabbath Day - a strange situation when one recalls that the game is believed to have originated in a country which became noted for its Presbyterian Sabbath. Whether or not in early days the same charge was laid, is not recorded, so far as we know, but it is a fact that in the ancient English cathedral of Gloucester one of the beautiful stained glass windows represents a golfer.

This information comes from the General Manufactures Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 101. Sat. Jan. 9, 1937 - Rules of the Stork.

When it is known that the stork is going to visit a house the expectant parents always wonder just what he is going to leave them. He seems to them a very whimsical old bird for they never know whether to expect a baby boy or girl, or whether it will be healthy and strong. Sometimes he surprises them with two babies, or even three or more. But when we consider it all from the stork's own point of view we see that he works according to quite definite rules; the trouble is that in doing so much work he pays very little attention to the wishes of individual families.

Year in and year out he brings more boy babies than girls. In Canada it is about 105 or 106 boys for every 100 girls. He has to do this to keep the balance even, for the infant boys are not as strong as the girls, and four of them will die for every three of the girls.

The stork has quite a fixed rule, too, about the number of times he brings more than one baby. Year after year he refuses to make 100 trips without bringing two babies on one of them. About once in 80 or 85 times it is. And in the long run, for every 100 times he takes twins he once takes triplets. On rare occasions he carries four or more. Perhaps if we watched him long enough, we would find that he brings more than three about once for every 100 times that he brings three. He has done it twice in Canada in ten years, while he has brought triplets 283 times, and 28,400 pairs of twins. To carry out this rule he would bring more than three only once in about one million trips.



This information comes from the Vital Statistics Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 102. Sun. Jan. 10, 1937 - Dentistry.

Dentistry in Canada prior to 1867 had no organization and no standard of qualification. Dentists began to practise after a private pupilage of from three to twelve months; they passed no examination and there was no guarantee of their efficiency. Today the minimum period of training is five years.

Ontario was the first province to establish professional qualifications and in 1875 a school of dentistry was founded in Toronto. Eighteen years later a college of dental surgery was established in Quebec at Bishop's College, Lennoxville. Later it was closed and a dental school established at McGill. Following this another training centre was instituted at the University of Montreal. In 1912 the Dalhousie Faculty of Dentistry was established, and more recently another in the provincial university at Edmonton, Alberta.

Many improvements have taken place in this service to mankind. From very early days we have records of teeth having been filled with lead and even gold foil. Bridges were crude, being wire or gold bands to hold an artificial tooth to its neighbours, and yet, these bridges form the essential principle of modern bridge-work. The substitute teeth for bridge-work were human or carved from ivory. Enamel for this purpose was not thought of until the 18th century.

One consolation, and one big enough to make the patient forget the drilling and freezing, is the assurance that work is being done by skilled hands with the latest available equipment science can produce and under the most hygienic conditions possible.

According to the last census, there were 4,000 dentists in Canada of whom 32 were women. Attendance at the five dental schools in Canada is now about 370; the annual number of graduates has recently been about 80.

This information comes from the Census and Education Branches of the Dominion Bureau of Statistics.

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No. 103. Mon. Jan. 11, 1937 - Canadian Wines.

Most Canadian wines are made from grapes, and so the industry is confined to a few localities such as the Niagara Peninsula of Ontario and the Okanagan Valley of British Columbia, where climatic conditions for the cultivation of grapes are favourable. There are 42 establishments in Ontario, six in British Columbia, one in Quebec and one in Saskatchewan. Ontario produces nearly 90 per cent of the output.

Wine making is a very ancient art, and different countries have specialized on the kinds of wine produced. The German, French, Italian and Spanish wines have long been famous. Now we have South Africa and Australia bidding strongly for recognition in the world markets.

But grapes are not the only fruits or vegetables from which wine is made. From potatoes to dandelions there is a huge variety, and in many Canadian homes rich wines are made. Newly wedded couples, a thousand years ago in Norway drank wine made

from honey for one month after the ceremony, and it is from that old custom that we get the word "honeymoon". It means simply the honey month.

Last year we imported wines to the value of over three million dollars, mainly from France, Spain, the United Kingdom and Australia, and our production was rated at over one million. Our exports are very small.

This information comes from the General Manufactures Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 104. Tues. Jan. 12, 1937 - Silk and More Silk

Silk has always been associated with the finer things of life. We have made the word a synonym for all that is good in people and things. We describe the best folk as being as fine as silk. The word itself is beautiful, conveying correctly in sound the thought of the thing it names. Sometimes, of course, we use it in a sinister sense; for example, when we talk of an individual we all can name and say he is "as smooth as silk".

The silk industry has a large variety of processes and produces a long range of textiles to adorn both the lady of the house and her home. Velvets and satins are both made of silk. We have China silk, India silk and taffetas. There are poplins, grosgrains, moires and other ribbed silks which give the corded effect. There are the shot silks and the pebbly effects obtained in crepes.

Figured silks may have the pattern woven into them or just printed. Then there is wild silk produced from the tussur worm which feeds on oak trees. The silk it yields is a yellowish brown and cannot be bleached, but it dyes well. Pongee silk is another name for it. The common silk worm feeds on the mulberry.

There are over eight million yards of real silk made in Canada in a year at a factory value of about four million dollars. Real silk mixtures are about half as much again.

This information comes from the General Manufactures Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 105. Wed. Jan. 13, 1937 - Natural Increase.

The population of a country may increase in two ways, - either by having more births than deaths, or by receiving immigrants from other lands. The former is what is meant by "natural increase". There has been little immigration to Canada since 1930, and the natural increase, too, is less than it was.

In the three years ending with 1932, our natural increase averaged about 134,000; since then it has been only about 119,000 a year. Previous to 1930 for several years there was an annual increase of about 13 persons for every 1,000 persons living in Canada. This rate has since been reduced to between 10 and 11 per 1,000.

There is a great deal of difference between provinces in the rate of natural increase. In Quebec it is more than three times as great as in British Columbia. Ontario has the second lowest rate.



In Canada as a whole the rate of increase is much higher than in most other parts of the British Empire. In Great Britain it is less than in the lowest Canadian province. In France it is lower still. The population of France has, in fact, almost ceased to increase, and the situation is not very different in Britain.

One of the highest recorded rates is in Japan; it is greater than Canada's. In the United States it is about half as high as here.

This information comes from the Vital Statistics Branch of the Dominion Bureau of Statistics.

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No. 106. Thurs. Jan. 14, 1937 - Our Museums.

Radio listeners across Canada every Sunday night hear a programme in the series, "Forgotten Footsteps", originating in the Royal Ontario Museum, and dramatizing for them the life of earlier civilizations. These programmes are an example of the increasing usefulness of our museums, which is contributing to a recognition of their value as educational institutions. Other services known throughout Canada are those of the National Museum and the National Gallery, the former in loaning specimens, lantern slides and motion pictures to schools, and the latter in loaning collections of art works or providing reproductions of famous works at nominal cost. The Dominion Archives are well known to students of Canadian history.

There are about 130 museums in Canada open to the public for the study of art, history, science or industry. Quebec, with about 50, has the largest number, and the majority of them are attached to colleges or universities. A dozen of the 40 museums in Ontario are sponsored by local historical societies, whose central interest is in the earlier days of their own communities.

Many of the 130 museums are small, with little or no endowment and have very little money spent on them in a year. It has usually been the interest and initiative of one or a few enthusiastic persons that has been responsible for their establishment, and there has often not been money enough to provide a suitable building. But as our Canadian history becomes longer, our contacts with other peoples closer, there are growing signs that our museums are entering a period of greater interest and use.

This information comes from the Education Branch of the Dominion Bureau of Statistics.

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No. 107. Fri. Jan. 15, 1937 - Northward on the Prairies.

The history of Canada includes more than a few mass migrations of her people. Think of the Acadians, the United Empire Loyalists, and the pioneers of the Western Provinces. Choice and compulsion both have played their parts in varying degrees at different times, and the two today have combined in bringing about our broad movement to the North. On the side of choice there is the lure of mineral wealth, but let us look for a moment at those on the Canadian prairies whom drought has forced to seek new homes elsewhere.

About 6,000 farms in southern and central sections of the Prairie Provinces have been abandoned in the last five years. Some 30,000 people must have

given up their homes and started anew. What disappointments and heartbreaks these figures bespeak. But there is a brighter side to the story, for they have not been broken in spirit. Most of them must have taken fresh courage and started again in the North, for on the northern frontier of Saskatchewan alone there have been about 8,000 new farms established since 1931. Altogether the more favoured areas of the three provinces show an increase of nearly 20,000 farms in the five years. This many families at least have either started farming or started over again.

The net increases in the five years, after allowing for losses in the south and in the Peace River area, has been about 12,000. So in spite of all hardships the farming industry on the prairies is expanding. Manitoba shows an increase of more than 3,000 farms since 1931, whereas in the preceding five or ten years the increase was less than 1,000.

The Dominion Bureau of Statistics has obtained this information from the Prairie Province Census of 1936.

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No. 108, Sat. Jan. 16, 1937 -- Farm Changes on the Prairies Since 1931.

Last night we spoke of the movement of Canadian prairie families out of the sections in which they have not been able to make a living under conditions of the last few years. Those who have not had to abandon their old homes, have nevertheless been making changes in the routine of their farms since 1931.

There are not quite as many acres under crop in Saskatchewan, but an increase in Manitoba and Alberta almost makes up the loss. More of the land is sowed in Durum wheat, but considerably less to other kinds, with the result that the total acreage in 1936 was about 4 per cent less than in 1931. There are more oats and barley now, and almost twice as much cultivated hay crop.

Adjustments have been made in live-stock, too. There are four cows milking now for every three there were, and five hives of bees for every two there used to be. The prairies are coming nearer to being a land of "milk and honey". Bacon and eggs must be scarcer for the pig and poultry populations have been reduced by one-quarter.

There are fewer old horses but nearly twice as many young horses and colts. It may be that a good many of these are being raised to take the place of worn-out tractors, which the farmers have not money enough to replace.

The source of this information is the Quinquennial Census of the Prairie Provinces taken in June last by the Dominion Bureau of Statistics.

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No. 109, Sun. Jan. 17, 1937 -- Better Times, Fewer Crimes.

There is no better assurance that young people will become law-abiding citizens than to see that they are kept busy. In the years from 1930 to 1933, when paying work was hardest to find, there was a pronounced increase in crime among young people between the ages of 16 and 20. These were the ages at which so many had left school but could find no work to do. Their younger brothers and sisters, still busy in school, did not have the same increase in trouble with the courts.



In the last two or three years, however, with the gradual return of better times, the amount of crime has been very definitely decreasing among young people in their later teens. Unhappily there is no decrease in the total crime for all ages, perhaps in part because it became a habit with so many of those who left school in the early 1930's.

There is an interesting point about the school records of boys who get into serious mischief, which may later become a habit of delinquency and crime. Up to the age of nine or ten the delinquent boys are more advanced in their school work than other boys, so their general level of intelligence cannot be low. But after the age of ten they apparently become more interested in trouble-making, and less interested in school. By the time they are fifteen they are a full year behind other boys at school.

This information is from the Judicial Statistics Branch of the Dominion Bureau.

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No. 110. Mon. Jan. 18, 1937 - The Government Debt of Canadians.

Some of us, perhaps most of us, have debts. Many of us may feel that it would be easier to pay our debts, or to pay the interest on them, if we did not have to pay so much in taxes. Taxes seem to be something quite different from our debt problem, but the fact is that a very large part of them goes to pay our debts too, - the debts that we have incurred through our governments.

For every Canadian who is making money there is \$1,300 owing through his different Governments, - Dominion, Provincial and Municipal - and almost \$300 more debt of other organizations, mainly railroads, guaranteed by the governments. Nearly all of the interest on this \$1,600 for every working Canadian must be raised in taxes. Of course, there is a difference between our government debts and our personal debts, in that we expect to pay the principal of the latter in a few years (certainly within our own lifetime), whereas our children, or children's children, are expected to take partial responsibility for government debts which have been made for purposes from which they will benefit. But there is no difference about the interest; it must be paid regularly in both cases.

Most of our public debt is owing through the Dominion Government, - roughly \$1,000 per worker. Of the remaining \$600, more is owed through the municipality than through the province.

This information is based on a report just issued by the Finance Branch of the Dominion Bureau of Statistics.

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No. 111. Tues. Jan. 19, 1937 - Our Coal Supply.

In most parts of Canada we have been congratulating ourselves on a long, open fall, and, so far, a comparatively mild winter. It makes the coal bill lighter, but we have to spend a good deal of money on it nevertheless. What we spend depends mainly on where we live, and it is not always those in the coldest sections who have to pay most.

We have huge quantities of coal in the Eastern and Western Provinces, but little or none in Quebec, Ontario and Manitoba. The provinces without coal are those that need most, and their distance from the Alberta and Nova Scotia mines is so great that it is generally cheaper for them to buy coal in the United States. Of all the coal used in Canada, more came from United States' mines than from our own, until the last five years. Our central provinces were using some from other countries, too, chiefly Britain.

In the last few years several changes have been taking place. We have been getting more coal from Great Britain, less from the United States, and from the two together we have not been buying quite as much as we have been using from Canadian mines. The estimated production of our mines for 1936 is fifteen million tons. The Dominion Government paid part of the freight on about two million tons of this, to help move it into the central provinces.

Last year, we bought a few hundred thousand tons from Germany and French Indo-China. This year, under the new trade agreement of 1936, we will probably buy some coal from the U.S.S.R., which we have not done since 1931. Purchases may be as high as a quarter of a million tons. Nearly all that we buy from a distance is hard coal or anthracite. Some of what we buy from the United States is also, but most of it is the softer bituminous, like the greater part of our own. The rest of ours is sub-bituminous or lignite. We have no anthracite, or almost none. It is because of its higher heating qualities that the central provinces often find it cheaper to bring anthracite all the way from Europe.

This information comes from the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 112. Wed. Jan. 20, 1937 - Canada 1937.

Thousands of radio listeners supplement the information they receive in these broadcasts each year by obtaining a copy of the annual official handbook of Canada published by the Dominion Bureau of Statistics. This year's edition, entitled "Canada 1937", is being issued this week. It reviews very succinctly the progress of the last year and describes present conditions in all fields of the country's economic life. A wealth of illustrations contributes to its interest.

The frontispiece this year reproduces an official photograph of King George VI, together with the texts of the proclamation of his accession to the throne, and the Prime Minister's message on behalf of the people of Canada. There is a pictorial record of the official visit of the President of the United States to Canada, and a special section illustrating phases of our export trade, which has shown such splendid progress during the past year.

The price of the Handbook is 25 cents, a sum that covers only the cost of paper and printing. A special concession in price is made to teachers, students and clergymen. They may buy it for ten cents. Teachers are finding it valuable in the new social and economic studies that are finding place in high school courses. Many teachers encourage students to put their dimes together and get copies for everybody in one order. This is a convenient arrangement. Orders should be sent to the Government Printing Bureau, Ottawa. Postage stamps can not be accepted in payment.



No. 113. Thurs. Jan. 21, 1937 -- The Fashionable Age for Marrying.

When young people ask permission to marry, parents are sometimes known to say, "Not yet, you're too young". There are probably always at least a few standing differences of opinion on the point. It may help to decide the problem to know what other people are doing, what is the customary age for marrying.

In the last few years more Canadian girls have been wedding at twenty-one, more boys at twenty-four, than at any other age, but the average is higher because more marry older than younger. The age of the average bride is twenty-three, the bridegroom twenty-six. This is a little older than in pre-depression days, but not much; and the old difference of about three years in the age of man and wife still persists.

Dan Cupid still claims his victims, of course, across most of the span of life. Each year he strikes nearly 100 boys and 300 girls in Canada under the age of eighteen; more than 100 men, and 20 to 25 women who are seventy-five or older.

Cupid strikes a second time more often in the case of women, but claims neither as often as he used to. Whether it is that experience teaches differently, or whether they just can't afford it, we don't know; but a much smaller proportion of widows and widowers are remarrying now than did ten years ago.

The source of this information is the Vital Statistics Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 114. Fri. Jan. 22, 1937 -- Narcotic Drugs.

Opium, cocaine, morphine, heroin, -- these are terms associated in the minds of many with the doings of the underworld. They can be great benefactors of mankind, too, as is known by the many they have relieved from pain. It is when they become a habit, and taken in excess, that they become an evil, so great that nearly all countries of the world are cooperating, through the League of Nations, in the control of their manufacture and sale.

Criminal Statistics throw light on this problem. From among the few thousand addicts in Canada a few hundred are fined, imprisoned or deported each year. The number has been very much reduced in the last ten or twelve years, however, and as there has been no lessening of vigilance on the part of authorities, this is taken to mean that good progress is being made in reducing the evil. It has at times been necessary to punish persons for growing opium poppies in Canada, but the chief problems are to restrict imports and regulate distribution, for the drugs are not made in this country. Smuggling is notoriously difficult to prevent, they are handled in such small packages.

One evidence of success in keeping them out of the country is the increased use of substitutes. A few years ago it was paregoric, but at the instigation of the Narcotics Division, Department of Pensions and National Health, a plan of control was worked out, under which purchases were cut in half between 1932 and 1934. Since 1934 it has been necessary to restrict the sale of codeine, another habit-forming drug, less powerful than morphine or heroin, but producing deplorable effects when used in excess. Imports of codeine since 1929 have been double what they were previously. An Advisory Committee of the League of Nations in 1934 found that Canada used more codeine per capita than any other country in the world.

Records of narcotic imports and court cases are published in reports of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 115, Sat. Jan. 23, 1937. Accounts at the Country Store.

We understand better now just how pleased the country storekeeper is with the customer that pays his bill regularly once a month. This plan makes payments only about two weeks behind purchases; his average customer is over two months behind. At least, it would seem so, by looking at his accounts on December 31, for on that date the country storekeeper has owing to him a sum equal to more than two months of his entire year's sales, including cash sales.

The accounts at the end of December may show more outstanding than usual, by reason of the extra Christmas shopping. But it is not long after harvest time and poultry-killing time, when a good many farmers paid up bills that had been growing all summer.

The general stores with the highest proportion of farmers among their customers seem to find payments farthest behind even in December. In Prince Edward Island, where there is a higher proportion of farmers than in any other province, country store bills are four months behind. (There is an extra reason here, in that it is too early for fox farmers to have got money for pelts). New Brunswick and Saskatchewan, the most rural provinces after P.E.I., come next, with store bills of about three months unpaid.

The general storekeeper in the country town has to wait for his money for just about twice as high a proportion of his sales as other merchants, considering them all together; and for about three times as high a proportion as in the case of city department stores. So we shouldn't be surprised if he seems a little uneasy when we ask him "to charge it" or to "put it on the bill".

This information comes from the Census of Merchandising Establishments conducted by the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 116, Sun. Jan. 24, 1937. Canadian Mining in 1936.

Increases in output of many mineral products and improved prices for several metals combined to make 1936 a record year in the mineral production of Canada. Products of Canadian mines and quarries, including metals, fuels, non-metals other than fuels, and structural materials were valued at \$360,340,000, or an average of nearly a million dollars per day for every day in the year. This is an increase of 15.4 per cent over 1935, the previous peak year.

Metal production reached an all time high of \$256,335,000. This was an increase of 16 per cent over 1935 and 71 per cent of the value of the total mineral production of the country. Fuels, including coal, natural gas and crude petroleum, were valued at \$61,002,000, an increase of 11 per cent over last year. Non-metallic minerals, other than fuels, rose 32 per cent to \$16,533,000, and structural materials gained 15 per cent over 1935 to reach \$26,670,000.

Gold accounted for more than half the value of all metals produced, viz., \$130,329,000. Nickel production, valued at \$43,471,000, took second place,



but copper was a close third with a valuation of \$38,665,000. Lead was valued at \$14,643,000, zinc at \$10,765,000, silver at \$8,164,000, metals of the platinum group at \$7,741,000, and cobalt at \$754,000.

This information comes from a preliminary estimate of Canada's mineral production in 1936, issued by the Mining Branch of the Dominion Bureau of Statistics.

No. 117. Mon. Jan. 26, 1937 - Fitting the Job to the Person.

In the modern world of specialized work it is a big problem to find the right people for different jobs as is illustrated by work in the Dominion Bureau of Statistics. About 1,000 persons were temporarily added to the staff to compile the results of the last Dominion census. They were selected by the Civil Service Commission out of 8,000 applicants, by means of a written examination to test their general education and intelligence.

The best thousand out of eight thousand should not differ very widely in general ability (except for a few particularly outstanding) and yet there was a pronounced difference in the success with which they performed different kinds of work. The fastest quarter of these employees on one kind of work, for instance, did about 23 per cent more work than the slowest quarter. This particular job was the operation of a statistical machine, and as it only takes about two weeks to learn to do a full day's work on this machine, it may often pay to train new operators instead of letting those continue indefinitely who are doing only four-fifths as much work as others. They may be able to do another kind of work better, with less strain on themselves.

Those who come near the very top of the examination list are not so much of a problem. They generally do well at whatever kind of work they are given, but of course they find some kinds more to their liking than others.

This information comes from the Census Branch of the Dominion Bureau of Statistics.

No. 118. Tues. Jan. 26, 1937 - Our Business Interest in International Friendship.

Figures for 1936 show that our foreign trade amounted to \$150 for every person in the country. Coming at a time of international tension and unrest, they serve to remind us of our tremendous interest in the maintenance of peace and goodwill among nations. For every family in Canada something like \$300 worth of goods passed over the international boundary between our country and the United States, and another \$300 worth crossed the ocean to or from our ports. In scarcely another country of the world is there so much international trade per person or per family. Only four or five of the great powers surpass us in the total value of their trade.

Our \$600 worth of trade per family in 1936 was made up of about \$230 worth of goods that we bought in other countries, and about \$370-worth that we were selling to them. The safety of the ocean for shipping is especially important for selling our produce, because in dealing with countries other than the United States we sell just about twice as much as we buy. Among them Great Britain is, far and away our best customer, and the other British Dominions stand high; especially Australia which buys more from us than any foreign country, except the United States.

For our best foreign customers abroad we have to look across two different oceans, to Japan and Belgium, the importance of whose relations with us is indicated by the fact that both now have legations in Ottawa. France, the other overseas country with diplomatic representation here, comes third or fourth, the amount of her purchases from us being about the same as the Netherlands<sup>1</sup>.

This information comes from the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 119. Wed. Jan. 27, 1937 - A Dollar Goes Farther Now.

In the last few years most of us have been finding it hard to make as much money as we did in the 1920's, but there has been a consolation: when we have got a dollar lately, it has been going farther. A careful record of prices in all parts of the country shows that in the last four or five years it has been possible to buy just about as much for the family with four dollars as we used to get with five. In buying food or clothing four dollars has been worth considerably more than five used to be.

In looking at the record for 1936, however, it is possible to see signs of this happy state of affairs for the buying public coming to an end. Prices are going up all along the line. The farmer last year got more for his grain, wool, hides and furs, the miner more for his metals, the lumberman for his lumber. And as the middlemen pass along this increase, the people who ultimately use the goods will have to pay more for them.

But what is the consumer's loss is someone else's gain, and few, for instance, can begrudge the farmer more pay for his produce. The rest of us for several years have been able to indulge in righteous pity of his plight, for it was world conditions, rather than anything we did, that brought down the prices of his grain. Now that world conditions have put them up again, we must cheerfully pay our share. And so with other kinds of produce, and in most of the world's countries. During the last few years the people on salary or fixed income, such as from insurance or government bonds, have most often been fortunate; now with prices rising, the primary producers and other people working on their own account, will have their turn.

The annual review, "Price Movements in 1936" has just been issued by Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 120. Thurs. Jan. 28, 1937 - Craftsmanship in Clocks.

Last week in the Bureau of Statistics we had a visit from a former fellow-employee, now superannuated. We had not seen him for more than a year, but a photograph he brought with him showed us the reason. It was the picture of a handsome grandfather clock, replete with carving and inlay work. Since we had last seen him, he had been making this clock by hand, mechanism and all, first calculating the proportions, then carving and cutting and fitting it, piece by piece. Many of the parts had to be cut over and over again before they were exact, but the completed clock keeps perfect time. It had been an exacting but absorbing piece of craftsmanship, such as its maker used to find in his more than forty years of building with statistics.



Such a feat a hundred years ago, in the days of "Sam Slick, the Clock-maker", would have been less unusual. Sam, in any case, would have been able to relate a more wondrous tale. In those days there was more of handicraft in clock-making and less of the machine.

Most of our clocks and watches nowadays are assembled in Canada from parts made in other countries. The output of plants here has as high a valuation as a million dollars in a year. The value of imported parts is more than a million, but a good proportion of these is used in repairs. We buy from other countries the better part of half a million dollars worth of complete clocks and watches. More than half of the assembled clocks come from Germany and Austria, and the rest mainly from the United States. Complete watches are practically all from Switzerland, while the parts for those assembled in Canada are mainly from the United States.

This information is from the Census of Industry of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 121. Fri. Jan. 29, 1937 - New Hybrid Apples for the Northwest.

The Dominion Department of Agriculture tells the story of the breeding it has done in order to produce a hardy apple for the great Canadian Northwest. The late Dr. William Saunders commenced the project in 1887 and a quarter of a century later he published a bulletin describing the results he had obtained. Dr. Saunders used the extremely hardy "Pyrus Baccata", the apple of which is not much larger than a good-sized pea.

The first hybrids were crosses between this apple and a number of commercial sorts. From these crosses were obtained a number of hybrids, all of crab-like characteristics, about one inch to one and one-half inches in diameter.

Later on a second lot of commercial apples was introduced from varieties like McIntosh Red, Northern Spy and Ontario. These second crosses were still very crab-like in nature but produced fruits up to two and a half inches in diameter.

From the first crosses two outstanding successes were obtained - Osman and Columbia, without doubt the hardest crab-apples of any commercial size growing in Canada and they appear to form a foundation stock for future development.

The third crosses have been distributed throughout the West for a hardiness test. Comparatively speaking, there is at present no commercial apple growing in the Prairie Provinces but if the new hybrids are successful the situation may be much altered in years to come.

The apple crop of the Dominion, exclusive of Manitoba, Alberta and Saskatchewan was about 3-3/4 million barrels last year, according to a report by the Agriculture Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 122. Sat. Jan. 30, 1937 - A Great Canadian Anniversary.

So swift has been the march of scientific progress during the lifetime of very many of the Canadian people, it is hard to realize that today marks the sixtieth anniversary of the issue of a patent in 1877 to Alexander Graham Bell for his Fundamental Telephone Receiver.

That patented Fundamental Telephone Receiver was the outgrowth of the discovery which the great telephone inventor realized, following his discovery three years earlier, at Brantford, Ontario, of the undulating current, which is the basic principle of transmission and reception by telephone.

An interesting feature of this so-called "receiver" was that it could be used both to receive and transmit messages. There are plenty of people around who will remember how the early receiver was used alternately. To listen to the message it was held to the ear and then brought in front of the speaker's lips to act as a transmitter. Some instruments were supplied with two "receivers". These were held in respective hands, one to listen with and the other to speak with. The receivers hung from a plaque on the wall, and these were the days of shouting into the phones and frequent irritating noises on the line.

Only sixty years ago today the patent was issued and now there is one telephone to every nine persons in this country according to the Transportation Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 123. Sun. Jan. 31 1937 - Canada's Trade with Australia.

Word comes from Australia that the Honourable W. D. Euler, our Minister of Trade and Commerce, has arrived in the capital, and has begun to discuss with the Australian Government ways of increasing trade between the two Dominions. It is an event full of possibilities, for Australia's purchases from us have been increasing so fast since 1932 that she has become our best customer, next to the United Kingdom and the United States. In each of the last two years she has bought well over twenty-million dollars worth of goods from us. We have been taking only about one-third as much from her, so Mr. Euler will likely find the Australians anxious to make the balance more even.

More than one third of her purchases from us is automobiles. Newsprint comes second, lumber third. Australia's forest resources are all hardwood, and not satisfactory for all building purposes. Until recently they have been thought useless for newsprint paper, but there are plans afoot now to build a mill in Tasmania capable of supplying the Commonwealth's entire requirements. She also bought from us last year about two million dollars worth each of cotton fabrics and canned salmon. There is an idea getting abroad, however, that Australians should develop a taste for their own fish instead of ours. They have an abundance of salt-water fish, and the Government has lately been taking important measures to develop the fishing industry.

More than one-third of our purchases is raisins. Currants and apricots bring the total value of dried fruits to more than three million dollars. Canned fruits are quite an item. We have been buying some wines, too and she will likely want to sell us more, for they are a chief item in her exports. Next to fruit products we buy more wool than anything else. Australia produces thirty times as much wool as we do, or more than one-fourth of the world's supply.

This information comes from the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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*Canada, Montreal, 10-11-37*

11-D-02

DEPARTMENT OF  
TRADE AND COMMERCE



**A FACT A DAY ABOUT CANADA**

FROM THE

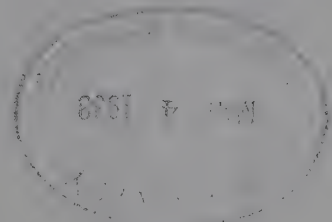
**DOMINION BUREAU OF STATISTICS**

AS SUPPLIED TO THE

**CANADIAN BROADCASTING CORPORATION**

**DURING FEBRUARY 1937.**

**THIRD SERIES**



Published by Authority of the HON. W. D. EULER, M.P.,  
Minister of Trade and Commerce.



## Contents

- |                                    |                                     |
|------------------------------------|-------------------------------------|
| 124. Nursing.                      | 138. World Trade in Wheat.          |
| 125. Jobs are Fewest in Winter.    | 139. British Columbians.            |
| 126. Winter Cheer from Boggs.      | 140. Stock Prices.                  |
| 127. Canada's Accounts in 1936.    | 141. The Cost of Going to Hospital. |
| 128. Prairie Wheat.                | 142. Broom Corn.                    |
| 129. Canada's Trade with Bulgaria. | 143. Cod Liver Oil.                 |
| 130. Eucalyptus Oil.               | 144. Education Week.                |
| 131. Petroleum.                    | 145. Motion Pictures.               |
| 132. Seed Potatoes.                | 146. Street Cars.                   |
| 133. Rubber.                       | 147. Fur Farms.                     |
| 134. Infants' Deaths.              | 148. Regional Libraries.            |
| 135. Breakfast Foods.              | 149. The Power Age.                 |
| 136. Canadian Money Abroad.        | 150. Prairie City People Moving.    |
| 137. Pianos.                       | 151. Pharmacy.                      |

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Note:- A Fact a Day is broadcast over the Corporation's network immediately after the Canadian Press News broadcast.

James Muir,  
Editor.

A Fact a Day about Canada  
from the  
Dominion Bureau of Statistics

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No. 124. Mon. Feb. 1, 1937 - Nursing

Many have been visiting the sick today. This is the time of year there is most sickness in Canada, and the hardest time to find a nurse when needed. We have more than 20,000 trained nurses, without counting those who have left their profession to be married. In addition there are about 12,000 nurses-in-training, and they will average more than a year's experience in caring for the sick.

In the hundred years that have passed since Florence Nightingale started out to make nursing her life work, it has been raised from the status of a menial task to the level of a profession. High standards of intellectual training, as well as character, are demanded for admission. The Lady of the Lamp herself contributed more than any other person to this change, for she was not only a person of high ideals, but like so many of her followers today, a woman of profound intellectual attainments with a broad and informed interest in social problems.

Her interest, which should stand as an inspiration to nurses of today, is shown in a letter she wrote at the age of seventy to Sir Francis Galton, that great scientist between whom and herself there was mutual admiration. After telling him of some of the social problems on which she saw a need for more scientific information, she says: "What is wanted is that so high an authority as Mr. Francis Galton should jot down other great branches upon which he would wish for statistics, and some teaching how to use these statistics in order to legislate for and to administer our national life".

This information is from the Census Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 125. Tues. Feb. 2, 1937 - Jobs are Fewest in Winter

This is the hardest time of the year for an unemployed man to get a job. There is some occasional work to be found such as cleaning up a cellar, shovelling snow, cutting ice, piling cordwood, but these little aids are not of much avail in the way of lessening unemployment.

However, the latest monthly figures show, fortunately, that it is not so hard this winter to get work as it has been for the last four or five; and a survey of business trends in 1936 gives reason to expect that many more of the unplaced young men of recent years will find jobs this spring. Every few days now a report on some phase of the country's economic life during the past year reveals we have been forging ahead with such momentum that nothing short of a catastrophe can prevent 1937 being a still better year.

Building and construction is the one kind of activity that has not shared in the general improvement, but it is expected that the new Home Improvement Plan, sponsored by the National Employment Commission, will add substantially to employment of this kind.



The annual report on the state of employment in Canada throughout 1936 has recently been issued by the Dominion Bureau of Statistics, Department of Trade and Commerce. It shows that on the whole there was an increase of just over eight per cent in the general amount of employment during the past year as compared with 1935.

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No. 126. Wed. Feb. 3, 1937 - Winter Cheer from Bogs

Whether you personally believe in the antics of that four-legged weather prophet, the ground-hog, or not, undoubtedly the thought has flashed through your mind that more fuel would likely turn to ash before Spring appears. And although most likely the source of heat in mind was coal or wood, yet some Canadians are counting the earthy blocks of peat stored in the wood-shed.

This spongy substance of vegetable origin is common to most temperate countries. However, the necessary conditions are that the soil must retain enough water near or at the surface at a sufficiently low temperature which will prevent evaporation and yet check too rapid decay. It must be warm enough to allow the growth of vegetation. The depth of the bogs vary greatly, some of those in Ireland being about 20 feet while some in England reach a depth of 40 feet.

Peat has several uses. The top layer has little value as a fuel but is suitable for the manufacture of moss litter used for agricultural and horticultural purposes and in insulating materials. The next layer is light in colour and although used for fuel is not comparable with that taken two or more feet below the surface.

Many Canadian farmers are utilizing near-by bogs as a source of fuel. The estimated production of peat for fuel alone in 1936 from bogs in Canada was 2,300 tons valued at \$10,000. There are no imports of peat as a fuel, but there was about 450 tons of peat moss imported.

This information comes from the Mining Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 127. Thurs. Feb. 4, 1937 - Canada's Accounts in 1936

Every person or company handling large sums of money keeps a record of its transactions. One of the tasks of the Dominion Bureau of Statistics is to make a record each year of Canada's total dealings with other countries. People living in other countries, chiefly the United States and the United Kingdom, have in the past loaned or invested a great deal of money in Canada. Interest has to be paid, and from time to time part of the principal has to be repaid. We manage to do this by selling to other countries more goods than we buy from them, by giving them gold from our mines, and by having them come here as tourists to spend money, and so on.

In 1936 we sold about 327 million dollars worth of goods more than we bought, and we paid about 126 million dollars in gold. The expenditures of tourists in Canada were about 165 million more than Canadians spent in visiting abroad. Foreign advertising in Canada and the earnings of Canadian residents working across the international boundary netted us about two million. From all these sources combined we were about 620 million dollars to the good.

It is too soon yet to know exactly what we did with this balance, but a preliminary calculation shows that we paid about 250 million more in interest and dividends than we.

received. Freight and insurance payments took about 32 million more of it. Smaller sums, amounting altogether to about 17 million, were used up by our immigrant residents sending money home, government expenditure abroad, missionary and charitable contributions, payment for foreign magazines, motion pictures and other entertainment. After all these net payments were made we had about 300 million dollars left to pay off on the capital of our debts in other countries.

The foregoing is taken from reports issued by the Internal Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 128. Fri. Feb. 5, 1937 - Prairie Wheat

On the Prairies in threshing time there are two questions on everybody's lips: "What's it running?" and "What are you getting for it?" In other words, "What is the yield of wheat per acre, and the grade?". In the good old days when 30 or 40 bushels to the acre was not uncommon, and No. 1 was the rule, the farmers could reply cheerfully, and in the sly hope of having a better answer than their neighbours'. Of late years there has been little of cheer in the replies, except for the grim humour of seeing whose answers were the most absurdly low.

In the 1930's there has not been a single crop as good as the average of 1925-29, and only one or two that have been anywhere near it. The last two together have not amounted to very much more than one crop in the 1920's. A year ago rust made the quality low, as well as the yield. This year with better quality as well as better prices, the prairie farmers are a little more fortunate on the whole, but in spite of the improvement it is still almost literally true to say that they had only half a crop in 1936.

As the seed is being cleaned these days for this year's crop, there must be a good many misgivings, but it is safe to say that there is still enough optimism in the West to expect that another crop like the one of 1915 will again some day be a reality, -- and who knows but this will be the year.

This information comes from the Agricultural Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 129. Sat. Feb. 6, 1937 - Canada's Trade with Bulgaria

The kingdom of Bulgaria is a Balkan country of about 40,000 square miles, almost exactly the same size as Nova Scotia and New Brunswick combined, its seaboard entirely on the Baltic. There are six million inhabitants, who may for general purposes be classed as Slavs, with the reservation that in an earlier stage they may have been Mongols. Although the national religion to which the sovereign must belong is Greek Orthodox, Bulgaria has had its own church and hierarchy since 1870. The people sided with the Central Powers in the Great War and lost much territory including access to the Aegean Sea.

Bulgaria is largely an agricultural state and is one of the richest countries of Europe in respect of livestock. Ninety per cent of the exports are derived from cattle breeding and crop raising. The valleys are famous for their flower gardens, like all Balkan valleys, and the preparation of otto of roses is a Bulgarian monopoly so far as Europe is concerned. Bulgarian otto is said to surpass in fragran



and strength that of Persia and India.

Canada's trade with Bulgaria is more or less indirect. That is, most of the commodities we send and receive go and come via other countries. The only direct import of any importance is cheese of a variety which some people like particularly well. We got six thousand pounds of it last year. Our main exports are rubber tires.

The foregoing comes from the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 130. Sun. Feb. 7, 1937. - Eucalyptus Oil

A cold in the head is almost the style at this time of year. An old-fashioned means of relieving it, and one that is still used a good deal, is to put a few drops of eucalyptus oil on one's handkerchief, and sniff it occasionally. To persons whose sense of smell is not impaired by a cold, the odour is apt to be disagreeably strong, and consideration for their sensibilities may sometimes be a reason for using something else.

Another substance sometimes used for a similar purpose is camphor. Eucalyptus oil and camphor have something in common about their origin too. Although now made synthetically, camphor has in the past come almost entirely from Japan. It is extracted from the wood of a Japanese tree. Eucalyptus oil is from Australia. About 90 per cent of Australia's forests are eucalyptus trees. There are 400 different varieties. The oil is distilled from the leaves of these trees. About \$200,000 worth is exported in a year, and large quantities are used by the Australian mining industry.

In Canada we usually buy from fifteen to twenty thousand pounds in a year. Much of it goes into patent or proprietary remedies. Our importers pay the Australians about 25 cents a pound for it, but it costs more when bought in small quantities at the drug store.

This information comes from the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 131. Mon. Feb. 8, 1937 - Petroleum

Petroleum is one of the great sources of power in the world of the 20th century. A generation or two ago it was valued chiefly for the kerosene we got from it for our coal oil lamps, but in the more recent years of motor power, kerosene has become a consideration quite secondary to the production of gasoline and lubricating oils.

Canada produces some petroleum in the Turner Valley and other sections of Alberta, and smaller amounts in Ontario, New Brunswick and the Northwest Territories. In fact we produce about one and a half million barrels in a year, but this is only one for every 20 or 25 barrels we use. We buy the greater part of the rest from the United States, but we also get more from each of Columbia, Peru and Venezuela than we produce ourselves. It comes to some forty refineries spread across the country, where the gasoline and other products are extracted.

The United States is the source of about two-thirds of all the petroleum produced in the world. Their daily average production reaches the enormous total of three million barrels, -- as much as we produce in two years.

The next greatest producers are Russia with half a million barrels a day, and Venezuela with almost as much. After these come Rumania, Iran, the Netherlands East Indies and Mexico with more than 100,000 barrels apiece. Beside these our Canadian 4,000 barrels sounds small, yet we rank well among Empire countries. The British Empire is notably deficient in petroleum sources, the leading producers being Trinidad with 30,000 barrels, India with 25,000, and Canada third. Several new Alberta wells were brought into production in 1936

This information comes from the Mining and External Trade Branches of the Dominion Bureau of Statistics, Department of Trade and Commerce.

#### No 132 Tues. Feb. 9, 1937 - Seed Potatoes

The spring seed catalogue is a source of joy to the average person. Whether your planting extends over acres or is confined to three flower-pots, the thrill of selecting new seed is not one to be passed over lightly. Among the interesting features in recent catalogues is the sale of potato eyes rather than the whole potato for seed.

Seed potatoes are given special attention from the time of planting until harvesting and Canadian seed is in great demand. Of the 20,083 acres entered for certification in 1936, 16,739 passed field inspection. There were about three million bushels of certified seed potatoes produced in 1936. Of this amount the exports up to December 31 were over one million bushels.

Normally Canada supplies around 93 per cent of the seed potatoes planted in Cuba and some very interesting points come to light in the regulations regarding this trade with Cuba. The seed is duty free while edible potatoes are not. To prevent the chance of the duty-free potatoes becoming used instead of the heavy-tariffed edible ones for food, a deposit equal to the duty on edible potatoes is required of the purchaser. The seed is kept track of until the authorities are certain of its use. Then the duty deposit is returned. It is estimated that Cuba will require over four hundred thousand bushels for the 1936-37 planting season.

The 1936 potato crop in Argentina was almost a complete failure and this opened up a comparatively new market for Canadian seed. By October 31, approximately 120,000 bushels had been exported to Argentina and Uruguay.

This information comes from the Agriculture Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

#### No. 133. Wed. Feb. 10, 1937 - Rubber

There are few articles of commerce that bring Canada into touch with more countries than rubber. We produce no raw rubber ourselves, our climate being too rigorous for the rubber trees, but strangely enough it is in selling rubber products made in Canada, rather than in buying rubber, that we have dealings with so many countries.



We used to buy nearly all our rubber through the United States, but in the last two years most of it has been coming to us direct from the Straits Settlements. There was an increase of about 50 per cent in price during the year 1936.

Our factories use some eighty million pounds of rubber and gutta percha in a year. About half of the value of their output is in automobile tires and tubes, about one-third in rubber footwear, and the remainder includes a very long list of products, chief among which are belting and hose. The annual value of rubber products made in our factories has only twice been below fifty million dollars in the last twelve years. About three-fourths of these rubber goods are for our own use, the other fourth finding its way to almost every corner of the globe. Tires alone went to more than a hundred countries.

The foregoing comes from the Manufactures and External Trade Branches of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 134. Thurs. Feb. 11, 1937 - Infants' Deaths

Out of every thousand children born in Canada, thirty-five die before they are one month old, and as many more before they reach the age of one year. This is the record at the present time. A few years ago it was much worse, and it is gradually improving, but it is still not a record of which we can be entirely proud in comparison with other countries.

There are countries where the record is much worse, even two or three times as bad, but there are many where it is much better. It is better in the British Isles, in the other British Dominions, in the Scandinavian countries, in Holland and Switzerland. While we lose seventy babies out of every thousand, New Zealand loses only thirty and Australia forty. British Columbia's record is the best of any Canadian province, being almost as good as Australia's. The New Zealand record is one at which all provinces are doubtlessly aiming through the spread of scientific knowledge to mothers and others responsible for the babies' welfare.

Years ago the baby death rate used to be particularly high in large cities where dangers of contagion and infection were greatest. This is no longer the case. In Montreal and Toronto, the rates are about the same as for the provinces in which they are situated, while the Winnipeg and Vancouver rates are substantially lower than the provincial.

The foregoing information is taken from reports published by the Vital Statistics Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 135. Fri. Feb. 12, 1937 - Breakfast Foods

Canadians of the year 1937 have a very wide choice in their breakfast foods. They may have them made from wheat, corn, oats, rice, soy bean, rye, flax and perhaps other grains. The foods may be bought uncooked, partially cooked or cooked and ready to serve. If the first, they may be rolled, cracked or ground; if the last they may be unsweetened or partially sweetened, and may be baked, shredded, puffed, crumbled or otherwise prepared.

Rolled oats which became popular a quarter of a century or more ago and took the place largely of old fashioned oatmeal, still seems to retain more devotees than any...

of the others. It is difficult to say how much wheat is cooked for porridge, as any farmer with a crusher can prepare it at home; and it is hard to say how much corn meal goes into mush, but it seems likely that most of the rolled oats is meant for the breakfast table, and we use something like 80 million pounds of it in a year, as compared with some 30 million pounds of prepared breakfast foods of all kinds. Price may often be a factor in determining choice, for the prepared foods on the average, cost three or four times as much as oats per pound. Measured by dollars, we eat more of the prepared foods than oats.

We sell a good deal of both kinds to the United Kingdom but the records do not tell us whether the oats are all for Scotland. Habits have probably changed since Dr. Johnson described oats as a food for horses in England, for men in Scotland, to which the reply was where can you find such horses and where can you find such men.

The above information comes from the Manufactures and External Trade Branches of the Dominion Bureau of Statistics, Department of Trade and Commerce.

#### No. 136. Sat. Feb. 13, 1937 - Canadian Money Abroad

The majority of Canadian people probably have never left the North American continent. But that does not mean that their minds have not travelled to the mysterious East or to tropical jungles. One of the questions which escapes in imaginative travel is "How much is our money worth in that country?" In answering that one, let us use the nearest equivalent.

Should you go to Austria, the unit of currency is the 'schilling' which is worth about 19 cents in our money. A visit to the land of the latest royal romance would bring you in contact with the Dutch 'guilder' which is valued at about 55 cents. Mussolini would give you one 'lira' for your five-cent piece.

Some currencies are of the same name in different countries but have different values. For instance, a French 'franc' is about 5 cents while a Swiss 'franc' is nearly 23 cents. A 'krone' in Denmark is nearly 22 cents, in Norway nearer 25 cents and in Sweden is changed slightly to 'krona' and is worth slightly over 25 cents.

In Belgium the 'belga' is worth 17 cents; the 'rupee' of India 37 cents and the 'yen' of Japan is valued at 29 cents. The familiar English term 'pound' in Great Britain is approximately \$4.90, about the same in Jamaica and South Africa, but \$3.92 in Australia and \$3.95 in New Zealand. Egypt uses the unit 'pound' which is 100 piastres in her money and \$5.02 in Canadian.

Just where the 28,000 Canadian tourists who went to overseas countries last year spent their money we do not know. The amount they spent was 16½ million dollars, all of which they must have exchanged into foreign currency, probably with the result of a few headaches.

The foregoing information is taken from a report on the Tourist Trade and the latest publication on exchange issued by the Dominion Bureau of Statistics, Department of Trade and Commerce.



No. 137. Sun. Feb. 14, 1937 - Pianos

One of the signs of better times in 1936 was the number of families who felt able to brighten up their homes with a new piano. More did it than had done for several years.

Many families who had bought pianos in 1928 or 1929, found their income reduced or stopped entirely in 1930, and were obliged to discontinue payments. Others whose payments were completed -- many who were strongly attached to their pianos through years of ownership and use -- found it necessary to dispose of them before going on relief. The result was an unusually large number of second-hand pianos on the market for several years, and few were demanded new from the factories. This surplus of distress merchandise is now very greatly reduced, and the situation is much improved.

Figures for 1936 are not yet available, but the output of new pianos is greatly increased, running again into the thousands, and employment figures have naturally shown a decided improvement. 1937 is looked forward to very optimistically by all piano manufacturers.

This information is based on reports issued by the General Manufactures Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 138. Mon. Feb. 15, 1937 - World Trade in Wheat

In recent years our wheat crop has had its ups and downs, but a survey of world trade in wheat during the last ten years shows that Canada has remained the greatest source of supply for countries that do not grow enough for themselves. In the five years from 1926 to 1930 our yearly exports averaged about 258 million bushels, Argentina's 150 million, and the United States 116 million. In the more recent five years, our annual average has been reduced to 190 million bushels, our closest competitor's, the Argentine's, slightly reduced to 144 million, and the United States so far reduced that Australia has taken third place from her with 101 million. The two British Dominions together have been supplying almost exactly half of all the international demand for wheat in the last five years.

The greatest buyer of wheat is the United Kingdom and, fortunately for us, her demand has remained steady over the whole ten years -- has even increased. So has it in the Irish Free State, France, Belgium, the Netherlands, Denmark, Norway, Switzerland and China. The situation is very different with Germany and Italy. Next to Great Britain they used to be the world's largest buyers, each taking about 80 million bushels annually, but they have cultivated self-sufficiency to such a degree that in the last five years they have averaged only about one-third as much, -- in 1935 less than one-tenth as much.

This information has been taken from a survey just issued by the Agriculture Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 139. Tues. Feb. 16, 1937 - British Columbians

The thoughts of the Canadian radio audience tonight are directed westward. The opening of a new broadcasting station in Vancouver marks another step ahead in the fastest-growing province of Canada. In the ten years preceding the last census the...

population of British Columbia increased by nearly one-third, an amount easily sufficient to win the laurel for speed from the Prairie Provinces, where it has been held so long.

This outstanding rate of growth produces some distinctive characteristics in the radio audience of the coastal province. It is by immigration rather than births that the increase has taken place. There are proportionately fewer children and a lower birth-rate than in any other part of Canada, but British Columbians take good care of their children and young people. They have much the lowest infantile death rate of any province, and the only provincial system of recreational and physical education for young people in Canada.

Only one-third of the province's people are British Columbians by birth, the other two-thirds by adoption. Over one-fourth were born in the British Isles; this is more than have gone to British Columbia from the other Canadian provinces; and the latter in turn are more numerous than people from foreign countries. An outstanding feature of British Columbia's European-born population is the number from the Scandinavian countries.

Another characteristic of the foreign-born is the relatively large number from China and Japan. More than half of the Chinese in Canada are in British Columbia, and nearly all of the Japanese. The two Asiatic races together constitute about one in fourteen of the province's population.

This information is taken from the Census Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

#### No. 140. Wed. Feb. 17, 1937 - Stock Prices

Mark Twain reports the following from Pudd'nhead Wilson's Calendar for October: "This is one of the peculiarly dangerous months to speculate in stocks. The others are July, January, September, April, November, May, March, June, December, August and February". As we are now in the last-mentioned of these twelve dangerous months, it may be as good a time as any to look at trends in the market.

Stocks of nearly every kind are higher in 1937 than they were at this time a year ago. Several groups have risen more than 25 per cent; these included the stocks of base metal mines, pulp and paper companies, machinery making and flour-milling concerns, transportation and power companies. Industrial stocks of all kinds were about 15 per cent higher last week than a year ago, public utilities about 30 per cent higher.

If we make a long-term comparison with the pre-depression days of ten years ago, we find that stocks of different kinds have had a wide variety of experience. Pulp and paper and transportation stocks are selling for only about one-third now of what they were then. Some kinds have changed little, while others are four times as high, and the whole industrial group twice as high. It must have been some such variety of changes as this, rather than a general upward movement like that of the last year, which led Pudd'nhead Wilson to record his remark.

The material for this broadcast came from the Internal Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.



No. 141. Thurs. Feb. 18, 1937 - The Cost of Going to Hospital

The average Canadian is a hospital patient about once in sixteen years. The married man with two children must have a hospital bill to pay about once every four years, and since the average stay in hospital is about three weeks, it is a sizeable item of expense, without counting doctor's fees and medicine bills.

A place in a public ward costs about two dollars a day; a semi-private room costs a little under three dollars a day, and a private room costs five dollars. These are average prices for the country as a whole; provincial averages range from \$1.50 to \$6.00. A trip to the operating room costs eight dollars.

The hospitals report that it costs them considerably more than three dollars a day to keep a patient, -- namely, some forty cents more than they charge their patients in semi-private rooms. So this business of caring for the sick can hardly be considered a money-making proposition. There is further evidence to this effect in the fact that during the depression years when other costs of living dropped substantially there was very little change in the cost of going to hospital. Apparently the hospitals could not afford to reduce their rates.

The foregoing is taken from a report issued by the Internal Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 142. Fri. Feb. 19, 1937 - Broom Corn

Why witches used brooms particularly for midnight flights is probably unknown but there is no question as to the use to which the Canadian housewife puts that important article. Present a woman with a shiny, new broom and watch the dust fly.

Brooms originally were just bunches of broom, a beautiful shrub which grows wild in the British Isles, particularly in Scotland. It has lovely yellow flowers. The slender twigs were bound together for coarse sweeping. Heather besoms were made for a similar purpose. The material used today is chiefly broom corn, a species belonging to the same family as the corn we use for food or fodder. The production of this broom corn is rapidly becoming a thriving industry in Western Ontario. The 1936 crop in the Chatham district was estimated at about one million pounds.

Although the raw material is being produced in Canada, large shipments come from the United States and some from Hungary and the Argentine. Before the bales are allowed into the country they must be sterilized for the destruction of any possible insects or pests concealed in the fibres. Until last year all imports were routed either to the port of New York or Boston for sterilizing with steam. Now there is an inspection station in Montreal for the treating of the imports. In this plant, series of experiments are being carried on to replace the steam sterilization process.

The manufacturers of brooms and brushes in Canada use about five million pounds of raw broom corn and 800,000 pounds of broom fibre annually. Last year we imported over \$321,000 worth. This amount was \$47,000 less than the imports of the previous year.

This information comes from the Manufactures and External Trade Branches of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 143. Sat. Feb. 20, 1937 - Cod Liver Oil

During the spring months, anxious mothers are chasing their offspring about, and occasionally Dad, with a bottle and spoon. Not so long ago the dose may have been sulphur and molasses, at the present time it is more likely to be vitamin A or D prepared in a palatable preparation, or better still, a capsule. One swallow and there is the equivalent of four or five teaspoonfuls of cod liver oil neatly deposited where it will do the most good.

The cod is a cold water fish which appears annually in enormous shoals off the coasts of northern countries. As early as the 17th century, "trayne oyle" or cod liver oil was shipped in considerable quantities from Newfoundland to English ports. Although its use was for technical purposes chiefly, it was known that several Arctic races used it for food. It was not until the beginning of this century that the vitamin content was discovered.

The early method of extracting the oil was to expose the livers to the atmosphere and let them rot. The action of decay destroyed the cell walls of the liver, freeing the oil. The oil so produced was brown, dirty and decidedly disagreeable, both as to taste and smell.

The process is very different today. As soon as the fish is caught the liver is extracted, washed and examined. Every effort is made to extract the oil immediately and for this reason some of the trawlers carry equipment to render the oil while they are still at sea. Fish caught inshore are rushed to the collecting stations to be treated. The oil is extracted by steam cooking which breaks down the cell structure freeing the pale or light yellow oil which has only a slightly, fishy smell.

Canada produced 61,000 gallons of medicinal cod liver oil in 1935 valued at \$33,000. The exports of cod liver oil amounted to about 10,000 gallons valued at \$7,000 and the imports to 330,000 gallons at \$229,000.

This information is based on figures from the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 144. Sun. Feb. 21, 1937 - Education Week

The school teachers of Canada, through their Federations, are asking that the week which begins today be observed as Education Week. They invite everyone during this week to give special attention to the problems of the schools. Their problems are many, and not all the result of depression, for their task has steadily grown and changed.

The Canadian child of today spends ten years in school. Nearly one-quarter of our entire population find their chief pursuit in the schools from day to day. In a real sense schooling could be called the biggest "business" in Canada. But schooling is a much more complex undertaking than any business or industry. Each school has a different task, each child is a different problem, for the first principle on which a democracy insists is the value of individual lives. It does not expect the same from all, but the best from each, and it depends on its parents and teachers to see that the best in each young life is developed. The two may well take a week to think together on their problems in a special way.

For every seven dollars that parents spend on their children at home, one dollar is spent on them in the schools, and the teachers like to feel that they have an...



interest more than proportionate to this in the welfare of the children. The coming week is the time to talk over these common interests.

This information comes from the Education Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 145. Mon. Feb. 22, 1937 - Motion Pictures

Motion pictures for Canadians have come to be just about as much of a necessity as the other things on which we spend our money. During the first three depression years, when things were on the down grade, our expenditure for motion pictures dropped just a little over 35 per cent, and almost exactly the same percentage decrease took place in our total purchases from retail stores of all kinds. Since 1933, when our expenditure for everything has been increasing again, our movie spending has risen in much the same proportion as the rest.

There are nearly 900 motion picture theatres in Canada, with a combined seating capacity of more than half a million. Each seat is occupied between four and five times a week on the average. The yearly attendance is equal to about a dozen shows for everybody old enough to go to the movies.

There is a charming story from the far North of an Eskimo boy ringing a cow bell and turning himself proudly so that all could read the legend emblazoned on his sandwich boards:

Motion Pictures Today  
Admission One Fish

These fish are later sold by the trader to dog drivers for cash. The traders bring the pictures.

Canadians are slower than the people of some other countries in using motion pictures outside of theatres, though we now have a National Film Society to encourage such uses. Motion pictures are coming to be an important means of instruction in the schools of many countries. The German Government has recently distributed 7,700 projectors and 32,000 films among German schools. The Nova Scotia Department of Education is acquiring a library of films for use in schools, and the Extension Department of the University of Alberta, but they seem to be the only provinces doing so, as yet. This being Education Week, school motion pictures will likely be a topic of discussion in many Canadian communities during the next few days.

This information is from the Internal Trade and Education Branches of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 146. Tues. Feb. 23, 1937 - Street Cars

The year 1937 is the 50th anniversary of the street car as we know it today, namely, the electric trolley car. It is so thoroughly taken for granted by city people nowadays, we have trouble in realizing that it is younger than many of those who ride on it. In some countries where electric power is cheap, it has been brought into use for main-line, cross-country railroads, but in Canada its use is practically confined to cities and their suburbs.

There are 40 different electric railways in Canada, and they carry 600 million paying passengers in a year. Counting the free rides, it means an average of something like 150 street car trips in a year for everybody in the cities where they operate. These figures include rides on the buses operated by the street railway companies, an increasingly important part of their service in the last ten years, but even so, it is plain that the street car remains the chief means of conveyance for a great many Canadians. The drop in passengers during depression years was about 30 per cent but since 1933 the number has been going up again. There are about 1,800 miles of track in use now, where there used to be 2,200.

There is a great deal of truth in the saying "The safest place is on the street car" for a fatal accident to a passenger is a rare event compared with street accidents while walking or motoring. Some years there is not one in the whole of Canada.

This information is from the Transportation Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 147. Wed. Feb. 24, 1937 - Fur Farms

Scarcely a week, or even a day, passes now but that we are reminded of some of the broad implications of the forthcoming coronation. One of these has to do with the demand for Canadian furs; from the days of New France they have held such reputation as to be in great demand on state occasions. Since the date of the last coronation, Canadian enterprise has put at the ladies' choice another handsome fur in quantities, — the silver fox.

Well over 100,000 silver pelts are now provided from Canadian fur farms in a year. Prince Edward Island, the original home of the industry, still produces most in proportion to its size, but Quebec and Ontario actually have more foxes, while New Brunswick, Manitoba and Alberta have almost as many, and the other provinces about half as many. In short, fox farming has become a national industry. The next few weeks are an anxious time for the fox farmers, for it is the time that this year's puppies begin to appear on the scene; they and their mothers must have every care and consideration if the little ones are to be raised to maturity.

The raising of mink on farms has come to be quite an established business too. Last year over 30,000 pelts were sold from farms. Mink, like ermine, has always been a favourite with the ladies, but the raising of them in captivity is comparatively new. Several other kinds of fur-bearers are being experimented with by Canadian fur farmers, including the fitch from Russia, and nutria, but nothing yet compares in number with the fox and mink.

This information is taken from a report just issued by the Fur Statistics Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce

No. 148. Thurs. Feb. 25, 1937 - Regional Libraries

Last Monday night the President of the Canadian Teachers' Federation invited everybody interested in the schools to visit them this week. It is not unlikely that many parents, on accepting the invitation, have found a good many dog-eared and dilapidated books in the school library. Some may even have found that there was no library at all. While wondering how to remedy the situation they may be



interested to hear of some special plans that have been devised for this purpose, — plans which at the same time provide reading for the parents.

In the Fraser Valley of British Columbia, 42,000 people scattered over a length of 100 miles have joined together to provide themselves with library service, schools and all. A book van travels about the area, distributing its cargo of reading material at 133 different points. The municipalities included assess themselves 35 cents per person for the service. The plan has worked out so well that the Okanagan Valley and Vancouver Island are organizing in the same way.

In Prince Edward Island, a province-wide library system provides free library service for everybody, including the schools that wish to join in the scheme. The plan has now been in operation nearly four years, and five or six times as many books are distributed as used to be before it was started.

In Ontario there is a county movement on foot for public libraries and schools to collaborate in the purchase and exchange of books. Lambton and Middlesex counties have been the leaders in the movement. In Nova Scotia the Department of Education has a plan for providing adult reading through the schools.

All of these plans have one thing in common: they treat the book question, in school and out, as a single problem, and this is what modern library schemes in other countries are doing.

This information comes from the Education Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

#### No. 149. Fri. Feb. 26, 1937. The Power Age.

The development of mechanical power as an aid to man has been one of the distinguishing characteristics of the twentieth century. The beginnings of the modern power age are back as far as James Watt and his steam engine, but the nineteenth century added a continuous series of discoveries and inventions which made possible the enormous use we are now making of gasoline, oil and electric power, as well as steam.

Western countries have several times as much mechanical horsepower working for them as they have manpower. In the United States, which is generally considered to be the world's most highly mechanized country, there are estimated to be five or six horsepower for every person in the population.

In Canada and Great Britain it is more like four horsepower per person. If we adopt the ratio of six men to one horsepower, then there must be something like twenty-five mechanical manpower available for every man, woman and child in the population, — surely an amazing contrast with a century or so ago when men had to rely on their own strength, and that of their horses and oxen.

Much the greater part of all this potential power is for transportation purposes; it is in our more than a million motor vehicles and our thousands of steam locomotives and ships. Part of our eight million electrical horsepower is used for transportation too, but most of it goes into our mines, our manufacturing plants, and our homes. Besides electric power, our factories use another million and a half horsepower from steam, gas, oil and waterwheels. Then there are the tractors and stationary engines on our farms, each another reason in itself for calling this the...

age of mechanical power.

This information comes from the Public Utilities Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 150. Sat. Feb. 27, 1937 - Prairie City People Moving

In a recent daily fact we told something of what the 1936 census showed about farmers moving northward on the prairie in the last five years. Further figures this week show that city people have been moving too. Winnipeg is fairly representative of the larger cities in this respect.

In the five years Winnipeg's population decreased 2 971, but this is only the net difference between several interesting increases and decreases. The Manitoba-born Winnipegers increased 10 901, or the very substantial percentage of 11.8; Winnipeg residents from all four western provinces increased by 12.4 per cent. Those born in the eastern provinces and in other countries decreased by 15,171, or over 12 per cent, and not more than half of this decrease could have resulted from deaths. Large numbers must have returned to Eastern Canada and elsewhere. The heaviest decrease, amounting to more than 6,000, was in those born in the British Isles, but the drop was also large enough in the case of continental Europeans to represent a considerable exodus.

The net result was that 47.9 per cent of Winnipeg's people were Manitoba-born in 1936, as compared with 42.5 per cent in 1931. One could say that Winnipeg has become decidedly more of a Westerners' city.

This information is taken from a report issued by the Dominion Bureau of Statistics on the Census of the Prairie Provinces.

No. 151. Sun. Feb. 28, 1937 - Pharmacy

With the great advances of scientific knowledge in the modern world, professions have become more and more specialized. It is really not so very long ago, viewed in the light of history, that the barber and the doctor were one and the same person, and it is indeed only recently that the doctor divided his work with the druggist. Today there are more than 3 500 drug stores in Canada, some of them with several graduate druggists.

To become a qualified druggist nowadays requires a long period of schooling, apprenticeship and college. First must come matriculation (honour matriculation in some provinces), then three years of apprenticeship during which there has to be private study and examination, and finally two years of college. The Ontario College of Pharmacy, the first in Canada and still the largest, commenced teaching in 1882. Ten years later it was affiliated with the University of Toronto, and now in every province except Prince Edward Island, New Brunswick and British Columbia there is a university Faculty of Pharmacy. In Quebec there are two. Altogether they graduate between 150 and 200 new druggists each year — eight or ten girls among them.

During the past week many of us have heard radio lectures or read articles in connection with the campaign to make the public aware of the danger of narcotic drugs. They serve to remind us that not only high educational qualifications but high ethical standards are required by a nation of the dispensers of poisons and habit-forming drugs. Both standards are jealously guarded in each province by a professional organization of druggists. In the larger cities there are also local associations, with which professional ethics are a first consideration.

This information comes from the Education and Internal Trade Branches of the Dominion Bureau of Statistics, Department of Trade and Commerce.











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DEPARTMENT OF  
TRADE AND COMMERCE



**A FACT A DAY ABOUT CANADA**

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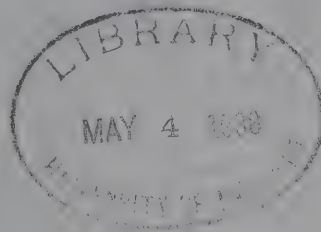
**DOMINION BUREAU OF STATISTICS**

AS SUPPLIED TO THE

**CANADIAN BROADCASTING CORPORATION**

DURING MARCH 1937.

**THIRD SERIES**



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Published by Authority of the HON. W. D. EULER, M.P.,  
Minister of Trade and Commerce.

Price 25 cents per annum



## Contents

- |  |   |
|--|---|
| 152. Canada's Trade with Latvia.                             | 167. Onions.                                |
| 153. Women in the Business World.                            | 168. Turkey Raising.                        |
| 154. A New British Colony. (Aden)                            | 169. Granny Smith Comes to Canada.          |
| 155. Woollen Textile Industry.                               | 170. European Aliens in Canada.             |
| 156. Chinaware.  | 171. Bread.                                 |
| 157. Imports of Edible Vegetable Oils.                       | 172. Canada's Trade with Yugoslavia.        |
| 158. Theology.   | 173. Asiatic Aliens in Canada.              |
| 159. Oysters - When and How?                                 | 174. Spices of Life.                        |
| 160. Barbers' Shops.   | 175. Eel Grass.                             |
| 161. Sulphuric Acid.   | 176. Aliens of British Origin in Canada.    |
| 162. Water in Paper Making.                                  | 177. Asparagus.                             |
| 163. Canadians as Newspaper Readers.                         | 178. Canada's Trade with Dutch West Indies. |
| 164. Canada's Trade with the Smaller<br>British West Indies. | 179. Benevolent Institutions.               |
| 165. The Official Languages.                                 | 180. Agricultural Machinery.                |
| 166. Eggs.   | 181. White Grub.                            |
|  | 182. What about the Wheat Sale?             |

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Note:- A Fact a Day is broadcast over the Corporation's network immediately after the Canadian Press News broadcast.

James Muir,  
Editor.

A Fact a Day about Canada

from the

Dominion Bureau of Statistics

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No. 152. Mon. March 1, 1937 - Canada's Trade with Latvia.

Away up in the Gulf of Riga on the Baltic Sea there is a little republic called Latvia which rose out of the ruins of the Russian Empire in 1918. The area of the country is 25,000 square miles, a little larger than Nova Scotia and a little smaller than New Brunswick. Riga, the capital, however, a noted seaport, has one-third more inhabitants than our third largest Canadian city of Winnipeg. The total population is about two millions. They have a one chamber parliament.

The Letts are a most interesting people. They are of north European stock and speak their own language. They are tall, robust, long-faced, blue-eyed, self-reliant, two-thirds being pure blondes. There are no illiterates in the country. They are an educated, well informed people.

The early history of the country is obscure but in the 13th century the land was invaded by the Germanic Order of the Sword which was later merged with the Teutonic Knights, the ancestors of the Baltic Barons. Under their influence the Letts became largely Lutheran. After various dominations, latterly by Russia, the country finally achieved its independence. The Letts have taken considerable part in the migration from Eastern Europe to North America and are welcomed immigrants. There are some in Canada but most of them are in the United States.

Canada's direct exports to Latvia last year were valued at over \$40,000, consisting almost entirely of copper. Our imports are of less value, mainly fish and rennet, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 153. Tues. March 2, 1937 - Women in the Business World.

Although there is an increase in the number of Canadian women working today, yet the ten chief occupations they follow are very much the same as in former days. Domestic Service claims the greatest number with over 132,000, which is more than twice the number of stenographers and typists. School teachers run a very close third with 65,000 followed by 45,000 saleswomen, 32,000 nurses and nurses in training, 29,000 office clerks, 21,000 bookkeepers and cashiers, 20,000 sewing machinists in factories, 19,000 boarding house keepers and 14,000 telephone operators.

Why women fill some of the occupations which we have been accustomed to think of as purely masculine may be due to circumstances rather than to choice. Others have been fortunate enough to pursue their ambitions and have overcome the prejudice of the business world. Among the more uncommon occupations for women we find three butchers and slaughterers, one tanner, six wood carvers, two auctioneers, two architects, five justices and magistrates, 17 undertakers, 32 dentists, 51 postmen and mail carriers, 78 police and detectives, 203 physicians and surgeons and 11 clergy.

However, the men needn't be alarmed over these figures for there are still more women who have remained in the home than are working. Only one half of the single



females over 15 years of age are gainfully occupied, one thirtieth of the married women and one fifth of the widowed and divorced.

This information is taken from a report of the 1931 census issued by the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 154. Wed. March 3, 1937 - A New British Colony.

Great interest is created by the announcement in London this week that on April 1st next, the Indian Province of Aden will become a British Colony. Situated close to the entrance to the Red Sea and a port of call on the highway between the United Kingdom and the Far East, it is a place of importance. The natives are mainly Arabs and Somalis from Africa, all speaking Arabic. The population is 51,000.

It is a small place in itself at the south-western tip of Arabia, being only 75 square miles in extent but, with the protectorate, totals 42,000 square miles, somewhat smaller than Nova Scotia and New Brunswick combined. The protectorate comprises territories and dependencies of chieftains who have treaty relations with the British Government.

Aden has for many centuries been a place of great strategic importance. It was fortified by Solyman the Magnificent, the Turkish potentate of the 16th century, who, although his reign is mostly associated with wars against the Christian powers, was a progressive and enlightened ruler. After him Aden was occupied successively by the Portuguese and the Turks, until it became a British possession a century ago. It is the only fortified point between Egypt and Bombay and is, therefore, in a very real sense an outpost of Empire.

Canada's imports from Aden are not very large and consist mainly of green coffee, fur skins and tobacco but there is a comparatively large export of Canadian commodities, particularly automobiles. We sent 50 last year. With tires and accessories, some wheat, canned salmon and a few medicines, the total was \$120,000, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 155. Thurs. March 4, 1937 - Woollen Textile Industry.

Far removed from the source of supply and exposed to a rigorous climate, the early settlers of Canada were forced to produce fabrics and clothing themselves. A spinning wheel and a loom became essentials in every home. Everything from clothes and towels to carpets and bedding were made by the women. In 1671, Jean Talon was able to inform his government in Paris that he could, if necessary, clothe himself from head to foot with garments made in the new Colony.

As years went on, the settlements grew in number and importance and a woollen industry was begun whereby the carding and fulling were done at a mill, usually in conjunction with a saw or grist mill. Today there is a firm whose name is reminiscent of the days when flour and wool were the products of one mill. It is called the Thurso Flour and Woollen Mills. In 1837, power looms for the manufacture of woollen goods were first used. A number of experienced Scottish weavers arriving some twenty years later were able to give the industry a great impetus.

The woollen textile industry has grown since the days when it was a home project into a great manufacturing industry made up of some 148 establishments. In 1935, 65 of these made woollen cloth, 34 made yarn, 24 produced carpets, mats and rugs and the remaining 25 made other kinds of woollen goods such as blankets, felt goods and batting. In early days the women folk spent their spare moments at the loom; today over 11,000 people are engaged regularly in the industry. The yearly output of the woollen textile industry amounts to about 37 million dollars.

It is possible, however, to obtain hand-woven woollens today, for many of the women in the rural sections of Quebec still practise the art of weaving. The spinning wheel of cherished memory still flourishes. The articles made are usually sold to stores which are patronized by tourists.

This information is taken from a report issued by the General Manufactures Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 156. Fri. March 5, 1937 - Chinaware.

As you washed the dinner dishes tonight or at least while you were eating off them, did you realize that it was only after the discovery of the Cape route to the East that porcelain dishes became familiar in Europe? Until that time, Western people used earthenware fashioned from clay and baked in a wood fire. The light and gracefully designed china of today receives its name from the fact that fine pottery was originally imported from China.

China was the first country to produce a hard porcelain and the Chinese were the sole producers for a great many years. The first European porcelain is believed to have been produced in Italy during the 15th century and later the art spread to France and Germany. The famous German Dresden of today was made as early as that.

In body and glaze the true English porcelain is equal, if not superior, to that of Chinese manufacture and only the spirit of Oriental ornamentation, authorities say, is lacking to place them on a level with the best specimens of the original Chinese art. Canadian visitors to London for the Coronation may view in the Victoria and Albert Museum some choice specimens of old English porcelain.

There is only one firm in Canada making chinaware. We imported last year tableware alone of china and porcelain to the value of over three million dollars, most of it from the United Kingdom, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 157. Sat. March 6, 1937 - Imports of Edible Vegetable Oils.

One of the interesting things about food in the modern household is the increasing use that is being made of vegetable oils. In ten years that increase has been remarkable. There are five main oils which we use for food.

By far the commonest of these is olive oil which comes mainly from Italy, although we get a large supply also from France. We use nearly 400,000 gallons in a year; in 1926 the quantity was just over 250,000.



Cotton seed oil, whose chief use is in canning fish, is the second largest import at 250,000 gallons, and is three times what it was a decade ago. It is used also as a butter oil and in shortening.

Soya bean oil comes third at about 150,000 gallons. It was first introduced into this country at the time of the Russo-Japanese war. The oil cake obtained is a staple in the diet of the Chinese.

Cocconut oil for centuries has been used for edible purposes and still remains popular, 55,000 gallons being imported. We get it from copra, the dried meat of the cocconut. The choicest cocconut oil comes from Malabar on the west coast of India where it is said to be more carefully cultivated and refined than in other places.

Last of the five leading edible vegetable oils is peanut which in its edible form is imported to the extent of 40,000 gallons in a year, nearly all of it coming from Hong Kong. It has a pleasant flavour and is largely used as a salad oil, according to the Chemical Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 158. Sun. March 7, 1937 - Theology.

This is the busy day of the week for clergymen. There are more than 13,000 of them in Canada or one for every 850 persons. Many have been driving long country circuits today on roads that are none too good. In this, the Lenten season, duties are perhaps heavier, too, in the towns than usual.

Theology is the oldest of the professions; in fact those who have officiated at mankind's places of worship through the ages have represented most of the professions in themselves. They have been teachers, historians, writers, doctors, scientists of all kinds, as well as priests. There are still more centres in Canada for the study of theology than for any other profession--about fifty colleges or seminaries. Each has about fifty students on the average and turns out about ten young men annually ready for ordination.

Several religious denominations with numerous followers in Canada have no theological college in this country at all, but have clergymen who were trained in the United States or Europe. This has something to do with the fact that more than one-third of Canadian clergymen were not born in this country. Most of those from abroad came from Great Britain, but there are 1,200 from Continental Europe and 600 from the United States.

This information comes from the Census and Education Branches of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 159. Mon. March 8, 1937 - Oysters -- When and How.

There is an old saying amongst fisher folk that the months of the year when oysters are not in season are those in which there is no "r"--May, June, July and August. These will be our lean months for fresh oysters.

Although oyster farming in Canada has resulted in a very largely increased production--indeed it is growing by leaps and bounds--it is still not nearly enough to supply the home demand. The old oyster suppers are not so common in some parts as they used to be. In Ottawa, for example, it is rare nowadays to see a big placard announcing the arrival of a consignment of oysters in the shell or a heap of them displayed in the window of an enterprising merchant. Not so very many home kitchens have an oyster opener amongst the domestic utensils. Soon, however, we are assured, these old days will be back again, for oyster farms are coming along fine.

Meanwhile we have to import a certain quantity of that delicacy of the sea from other countries. The imports of fresh oysters, shelled or in the shell, come almost entirely from the United States. With more money in our pockets our importation of oysters is growing rapidly. The invoiced value of these last year was about \$238,000, coming from the United States, Hong Kong, Japan and New Zealand. Seed oysters for planting come from Japan and the United States.

This information is based on reports by the Fisheries Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 160. Tues. March 9, 1937 - Barbers' Shops.

The red, blue and white striped pole outside a barber's shop has a very real meaning. The local barber used to be the local surgeon, where patients were bled and bandaged. The pole was the symbol of the splint to which a broken arm was bound, the white stripe represented the bandages, the blue the veins that had to be opened and the red the blood.

Barbers don't do such doctoring any more, although the enterprising hair dresser will suggest a scalp treatment, the idea probably being that a treatment a day keeps baldness away, just as an apple a day is said to keep the doctor away. However, one need not place too much confidence in commercial proverbs.

The last census showed that there was one barber for every 470 of the population. That is not very many, which may bring to mind that occasionally the thrifty mother still trims her boy's long locks in the old fashioned way by slipping a bowl over his head and clipping round it.

There has been a remarkable growth of late in the number of barbers in Canada. Women with their beauty shoppes have taken a strong hand in the business and have added amazingly to the number of barbers and hairdressers. In ten years the ladies have increased ten times. There are not yet as many female as male barbers, however something like seven thousand to over 16,000. The men increased from nearly 11,000 to over 16,000 but the women from 660 to 6,700 odd, a huge percentage gain, according to the Census Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 161. Wed. March 10, 1937 - Sulphuric Acid.

Oil of vitriol is the old name for sulphuric acid, derived from its first preparation by alchemists who made it by distillation of sulphates, particularly green vitriol, or by the burning of sulphur after the addition of saltpetre. In fact,



historically, sulphuric acid is one of the first isolated acids, known to the Arabians in the eighth century and to the Europeans in the 14th and 15th centuries, when chemical industries began to develop.

The manufacture of sulphuric acid is one of the fundamental chemical industries. We are dependent on it for much of our washing soda, spirit of salt, nitric acid, and hence for explosives and numerous dyes. It is used in fertilizers, petroleum refining, paints, glue and storage batteries. When mixed with water it generates a great deal of heat and many of its uses depend on this property. Alcohol on being treated with it loses the elements of water and produces ether or ethylene, according to the conditions of the experiment. It is very corrosive; it produces painful wounds on the skin and destroys nearly all vegetable and animal substances. Under various circumstances it attacks nearly all the metals. It is a deadly poison.

Canada of late years has been breaking all records in the production of sulphuric acid. The latest figures available showed nearly 225,000 tons valued at \$1,172,000. There are seven plants manufacturing it, three of which are in Ontario, three in British Columbia and one in Nova Scotia, according to the Mining and Metallurgical Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 162. Thurs. March 11, 1937 - Water in Paper Making.

When one considers that from 10,000 to 400,000 gallons of water are used to produce only one ton of finished paper, one's thoughts turn to Niagara. It takes an immense volume of water to turn out Canada's three million odd tons of paper.

And yet that is only a small proportion of the water the paper industry uses, for a much vaster amount is rushed through the great power houses to turn the wheels and furnish electricity. It provokes the thought that this Dominion is peculiarly blessed in having great volumes of water to be harnessed for the use of commerce.

The quality of the water, however, in paper making is important. With the coarser grades, such as brown wrapping paper, the composition of the water does not figure so prominently, but in making white or light shades of paper, the iron in the water must be removed. Rust spots in the finished product are a common result of the use of water containing iron. Alkali gives the pulp a brown colour.

Waters containing suspended matter resist the action of bleach and cause dark spots or specks in the finished paper. Acid waters are amongst the most annoying offenders. This goes to show that the volume of water is not all; there have to be operations such as aeration and filtration as well as chemical treatments to make the water suitable for use, according to the Metallurgical Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 163. Fri. March 12, 1937 - Canadians as Newspaper Readers.

The extent to which Canadians are newspaper readers is illustrated by the fact that the per capita sales and subscriptions for daily newspapers printed in the Dominion come to about \$1.25 a year, according to the latest figures available. The average household in Canada is about four persons, so that the average household is spending \$5 a year. That seems to be excellent evidence that the Canadian people keep themselves

well informed regarding passing events. They are good newspaper readers. Some newspapers printed in French have remarkably large circulations. It is said that one of our French newspapers printed in Montreal has a larger circulation than any daily newspaper printed in France. The reason of this may be that in France there is a greater variety of newspapers.

The amount spent on daily newspaper sales and subscriptions is over \$11,000,000 in a year, but there are the weeklies as well, dear to the hearts of the people of the towns and villages and the folk who have gone far away from their native places. They constitute something like a letter from home. Subscriptions and sales of weekly and other newspapers run to over \$3,000,000, a surprising total. In these publications the readers learn what their neighbours are doing, which of them are sick, who amongst them are climbing to the heights. The good weeklies are like friendly visitors, malicious reporting of incidents a very rare thing.

Subscriptions to magazines and other periodicals amount to almost half that of the weeklies, all of which shows that the circulation and reading of news is a strong feature of Canadian life.

The foregoing figures are taken from a report on paper using industries just issued by the Forestry Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 164. Sat. March 13, 1937 - Canada's Trade with the Smaller British West Indies.

In the West Indian archipelago there are many small and highly attractive British islands with which Canada has a valuable commerce. The total area of the archipelago is nearly 100,000 square miles, of which 72,000 are independent states and over 12,000 are British islands.

The Bahamas, with their twenty inhabited islands, send us sponges and fresh tomatoes and, besides the articles of trade which we export, many Canadians go there to enjoy the salubrious climate.

Good climatic conditions are a feature of these smaller islands. Dominica is a health resort for pulmonary and rheumatic invalids and yellow fever is unknown. From the Turks Islands we get the finest salt in the world. The scenic Montserrat has hot springs. The British Virgin Islands came under the Union Jack like several others, in the 1600's. The picturesque Grenada has some valuable timber forests. St. Kitts is one of the most effectively cultivated sugar islands. St. Vincent is one of the most thoroughly English in the archipelago. Barbuda, which formerly belonged to the Codrington family, has wild deer.

The main commodities we get from these beautiful islands are bananas, grapefruit, oranges, cocoanuts -- millions of them -- coffee, spices and so on. From the point of view of the monetary value, raw sugar is the greatest. The total value last year was about \$1,820,000. Our exports exceeded \$1,280,000 which included a considerable variety of commodities but by far the leading item was flour at well over half a million dollars.

This information comes from the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.



No. 165. Sun. March 14, 1937 - The Official Languages

When we hear a French programme over the air and an announcer repeat in English what he said in French, or vice versa, there are two very good reasons for this. One is that English and French are both official languages in Canada and the other is that there are very many people in the Dominion who can only speak one of these two official languages. Apart from the officiality of it, there are courtesy and kindly consideration in the gesture.

Here is what the census tells us. Fifteen per cent of the population of Canada, excluding those under ten years of age, are unable to speak English. More than 48 per cent of the people of Quebec stated that they could not converse in the language of the Anglo-Saxon. That is almost half of the population of the province. Sixty-one in every hundred of the Quebec people of French origin cannot speak any language except their mother tongue. The nearest approach to this is New Brunswick where there are many Acadians. Eleven per cent of the people of that province are non-English-speaking.

Put in another and perhaps more definite way, the population of Canada ten years of age and over is about 8,170,000. Of these, there are 1,130,000 who were born in the Dominion and other British countries who cannot speak English. Of these again, there are 1,079,000 of French origin and the other 51,000 are of many races, chiefly Dutch, Italian, Russian and German. There are 29,000 Indians unable to speak English.

Prince Edward Island is the most English-speaking province of the Dominion. Only one in every three hundred is unable to converse in English. Practically every adult, whose mother tongue is Gaelic, can read and write English also. Nova Scotia comes next with over one per cent who cannot speak English, and Ontario third with over two per cent. In the Western Provinces the percentage runs over four in each case.

These figures are from Census reports issued by the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 166. Mon. March 15, 1937 - Eggs

Eggs, some reputable authorities tell us, have a nutritive value closer to milk than that of any other food. Canadians consume a lot of eggs, so as a people we ought to be well nourished. The recorded production is about 225 million dozen in a year. But the little backyard hen-house behind so many of our country and suburban homes makes no official reports, therefore it appears clear that the per capita consumption of eggs must be about one a day.

The domestic hen thus plays a large part in our food bill and when we think of eggs we associate them with Busy Biddy. Other birds, of course, lay edible eggs. Most country boys have at least once enjoyed hugely a scramble of sparrow's eggs and maybe felt they thereby were keeping down the little English immigrant. A mess of starling's eggs would do a much better job. Any boy who lives along the seashore can tell of the fishy taste of the sea-gull egg.

One of the things that bother a lot of people is to read in the business section of the daily newspaper once a month the announcement that the cold storage plants had fresh and cold storage eggs to a certain quantity. Why the distinction? It is simply

because "fresh eggs" have never been in the cold storage rooms at all while "cold storage eggs" have had a long or short spell in the Arctic-like temperature.

We use many eggs in the frozen and dried form, the latter usually called egg powder. A good deal of this comes from China and Japan, while we get eggs in the shell from Hong Kong and China also. Egg production in Canada has been increasing of late and is getting back to the high figures of six or seven years ago, according to the records of the Agriculture Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 167. Tues. March 16, 1937 - Onions.

The delectable, although odouriferous, onion is a perennial plant, but onions and leeks for edible purposes are raised annually from seed. The onion is a native of Asia and has been cultivated for ages.

Onion production in Canada is chiefly "yellows", with smaller quantities of red and Spanish stock. Commercial areas are practically limited to the Provinces of Ontario and British Columbia, most of the other provinces producing comparatively small quantities. Canadian production, however, is not sufficient to meet the domestic demand during the entire year, and therefore additional supplies are imported from the United States, Spain, Egypt, Australia, the United Kingdom, Bermuda and Chile.

Some of the onions which come from the United Kingdom are re-exports of the famed Tripoli, Madeira and Brittany varieties which are very popular in Britain. They are said to be more delicate in flavour and less coarse in texture than the better known Spanish onion.

Last year we imported more than fourteen million pounds and exported over 133,000 bushels to the West Indies, British Guiana, Newfoundland, Central America, United States, Fiji, Hawaii and New Zealand. It is difficult to convert these bushels into pounds for the sake of a clearer comparison, because some of the small onions have a heavier bushel weight than the large onion.

This information comes from the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 168. Wed. March 17, 1937 - Turkey Raising.

Poultry raisers are talking turkey these March days, for the season of planning for the great Christmas market is beginning. The turkey is the king of birds in the poultry world.

The turkey, which belongs to the pheasant family, is a native of North America, from southern Canada to Mexico, but is now extinct in the wild state in the settled areas. On its introduction to England, it was supposed to have come from the Moslem East, then loosely called Turkey, and the bird was accordingly thus named. A similar error was perpetuated in France, where it was called poule d'Inde, bird of India, since contracted into dinde.



Canada's turkeys are amongst the finest produced in any country and are relished abroad, about one million pounds now going fairly regularly since 1932 to the British market alone.

While the principal development in turkey raising in the past few years has been in western Canada, the industry has been making considerable progress in eastern Canada, particularly in Ontario and Quebec, where there is artificial hatching and rearing. Most of the production, however, comes from farmers engaged in mixed farming.

The turkey population of Canada as at the beginning of June runs to between two million and two and a half million birds and the average value at that time of the year varies from \$1.12 to \$1.88, according to reports issued by the Agriculture Branch, Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 169. Thurs. March 18, 1937 - Granny Smith Comes to Canada.

The countries of origin of our imported fruits are always of interest, especially during the winter months when we get delicious fresh fruits and wonder why. Apples, for example. The enterprising shopkeeper may introduce a New Zealand apple to his customer and give it that enticing name of Granny Smith. These New Zealand apples come in when our own are out of season, no fewer than 18,000 barrels of them landed in this Dominion during the fiscal year 1936.

Our fresh tomatoes came mainly from Mexico last year, nearly 18 million pounds out of over 39 million. The British West Indies and Bermuda supplied the next largest quantity at over seven million, while from the United States we got over six million. Most people call the tomato a vegetable but we need not argue over that.

We got \$5,772,000 worth of oranges, of which \$5,239,000 came from the United States alone. There was a heavy drop in the imports from British South Africa, Australia, Palestine, Japan and Spain, the decrease from Spain being no doubt due to the disturbed conditions in the country, although the imports of certain other commodities have kept well up, despite the sad war.

Fresh grapes come mainly from the United States but we got 88,000 pounds from Australia, as well as 67,000 pounds of pears.

The most widely used dried fruit that we import is the raisin. Long ago it was Spain that sent the big supplies and later the United States, but Australia has taken their place. From that country we got last year 26 million pounds out of 35 million. South Africa is now taking a strong hand in this trade. Practically all our dried currants come also from Australia; Greece was once the main source.

Dried dates come mainly from Iraq, perhaps better known as Mesopotamia, dried figs from Turkey, canned pineapples from the Straits Settlements, with Australia second, and canned pears from Australia, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 170. Fri. March 19, 1937 - European Aliens in Canada

There are 1,123,000 persons in Canada who were born in countries outside the British Empire. Of those only 615,000 had become naturalized Canadians at the last Census so that there are or were at that time 508,000 persons who did not owe allegiance to the British Crown, no less than almost one-twentieth of the population.

The alien males number 343,000 and the alien females 165,000. There are 297,000 males over 21 years of age who owe alien allegiance. In other words, men who have not yet become Canadian citizens.

The number of immigrants born on the Continent of Europe alone is 714,000 of whom 351,000 only have become naturalized. There are or were at the Census 209,000 men over 21 years of age who owe fealty to a sovereign power in Continental Europe. These male aliens over 21 include 50,000 Poles, 20,000 Russians, 13,000 Hungarians, 13,000 Czechoslovakians, 12,000 Germans, 10,000 Italians, 10,000 Yugoslavians and 10,000 Roumanians. During the last few years that situation may have altered somewhat, but that is what the Census told us.

Naturalization figures show that the percentage of naturalized citizens amongst the European-born males over the age of 21 is highest amongst the Icelanders with 92 per cent, French 66 per cent, Russians 62, Italians 61, Austrians 58, Swedes 56 and Germans 46 per cent. The smallest percentage of naturalized Canadians among the males from Europe over 21, is contributed by the Czechoslovakians, Yugoslavians and Hungarians.

These figures are taken from the Census reports issued by the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 171. Sat. March 20, 1937 - Bread

The origin of bread is shrouded in the mists of unrecorded times. Many references to breadmaking are made in early classical literature, whilst discoveries among the pyramids and tombs of Egypt have revealed many interesting facts concerning the types and quality of bread eaten by the early people of that country.

Ancient Mosaic law forbade any one taking a millstone in pledge of debt, which shows the importance placed upon the grinding of wheat for use by the people in days when subsistence was a common problem. That law equals in importance those of our modern states. In Canada, statutes relating to the sanitation and cleanliness of bakeries and the weight of bread, are under provincial jurisdiction.

For many centuries, breadmaking was for the most part a domestic art, but with the development of towns and cities the making of bread gradually passed from the domestic circle to the family baker. This continued for a long period, until at the beginning of the present century a new phase was marked. With the advent of mechanical power and automatic processes, also the improvement in transportation, the bread industry has made rapid progress within the last decade. The factory production in 1935 was nearly \$60,000,000.

In the last few years another change has developed. It may be due to alteration in our dietary habits and perhaps in a lesser sense the lack of purchasing power.



Since 1929 the consumption of factory bread has decreased more than ten per cent per capita. Whatever the reason, that is the fact, according to the Census of Industry Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 172. Sun. March 21, 1937 - Canada's Trade with Yugoslavia

The kingdom of Yugoslavia is a post-war federation of the little countries of Serbia, Montenegro, Croatia, Dalmatia and Slavonia, and parts of Bosnia, Herzegovina and Styria. Pre-war Serbia had no seaboard, but the inclusion of Croatia, Dalmatia and Montenegro in the new kingdom gives access to the Adriatic Sea down a lengthy coast. Also by an agreement with the Greek Government Yugoslavia has a free zone at the port of Salonika.

The famous and progressive capital of Belgrade with its 300,000 inhabitants is inland on the Danube river, a great commercial highway. Tributary rivers provide other important shipping routes. There are daily air services and good railway connections.

Yugoslavia has an area of 94,000 square miles, nearly twice as large as our Maritime Provinces, and a population of 13 million, two million more than that of Canada. The Orthodox, Roman Catholic, Protestant, Mohammedan and Judaic faiths are recognized by the State but about 47 per cent of the population is of the Orthodox Church. Education is compulsory and elementary education free. There are 12,000 persons of Yugoslavic origin living in Canada.

Eighty per cent of the people of Yugoslavia are engaged in agriculture. There is considerable mining of coal, copper and iron, with an output of chrome ore.

Canada's trade with Yugoslavia is not very large but is growing. Our main imports are onions and hops, with a few odd things such as musical instruments, chemicals and vegetable drugs, valued at less than \$100,000 last year. Our exports were chiefly rubber tires and films to the value of \$6,000.

The foregoing is from the External Trade Branch of the Dominion Bureau of Statistics Department of Trade and Commerce.

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No. 173. Mon. March 22, 1937 - Asiatic Aliens in Canada.

There are 61,000 natives of Asiatic countries living in Canada. These include 42,000 Chinese, 12,000 Japanese, 4,000 Syrians, 1,000 Turks and 600 Armenians, according to the last Census. The people of Asiatic origin in the Dominion number 85,000.

The immigrant males from Asia greatly outnumbered the females, particularly so in the case of the Chinese, the males 40,500 and the females 1,500, whereas the immigrant Japanese were nearly 8,000 males to over 4,000 females. The result, of course, is that there are more natives of Canada of Japanese origin than of Chinese origin. More Japanese children are born here than Chinese. There are nearly 10,000 females of Japanese origin in Canada and only 3,500 Chinese.

Of the 61,000 immigrants from Asia, 51,000 were men over 21 years of age and only 7,400 over that age had become naturalized citizens of Canada. Over 43,000 still remained aliens. The Chinese who took out naturalization papers and signed the oath

of allegiance totalled 2,140 and the Japanese 2,670. Proportionately speaking, the Syrians, Armenians and Turks demonstrated a greater desire to become Canadian citizens.

The people of Chinese origin in Canada, numbering 46,500, are almost exactly double the 23,300 of Japanese origin. Taking the two together, their church connections are interesting: Confucians 40,000 or less than half, United Church 10,000, Anglicans 2,600, Presbyterians 2,400, Roman Catholics 1,100, Baptists 400. They are, however, represented in almost every church and religious organization.

This information is taken from Census reports issued by the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 174. Tues. March 23, 1937 - Spices of Life

Whatever the old rhyme of childhood days

With sugar and spice and everything nice,  
That's what little girls are made of

may have conveyed to youthful minds is very likely forgotten by adults. Not so the enticing odour floating from the kitchen on baking days when cinnamon, cloves and nutmeg were used in the process.

These spices which add zest to our food are vegetable substances, usually the products of trees. Cloves, for instance, are the dried flower buds of an evergreen tree which grows in the East Indies, East Africa, the West Indies and Brazil. The buds are dried in the sun or with hot air.

Cinnamon is the dried inner bark of a tree which grows in the neighbourhood of the West Indies. Allspice is the dried fruit of an evergreen tree which grows in Jamaica, Mexico and northern parts of South America. The berries are picked while green and sun dried or kiln dried. Nutmegs grow on a tree resembling the orange tree. The nuts are gathered and smoked until the shells can be cracked and the kernel separated. The nuts are gathered and smoked until the shells can be cracked and the kernel separated. The shells are ground and sold as mace.

Ginger, although not a product from trees, is the root of a sub-tropical plant. Black ginger is made by scalding the roots and rapidly drying them while white ginger is obtained by drying the macerated root in the sun.

Last year Canada imported \$915,000 worth of spices. Some came directly from the country where they grew, but over \$505,000 worth came from the United Kingdom and the United States, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 175. Wed. March 24, 1937 - Eel Grass

Until a few years ago eel grass was abundant in many parts of our Atlantic Coast and the Gulf of St. Lawrence, as well as along the United States eastern seaboard. But in 1930 a mysterious disease came along. Everywhere the grass suffered; in some places it largely disappeared. Wild birds, such as brant and geese, went hungry and commercial utilization of the grass came to a standstill.



The Department of Fisheries was quite concerned about it and extensive studies were made of the situation. It was learned that apparently the disease had worked northward from Virginian waters and various possible causes were found. The weight of evidence seemed to point to one of the lower forms of fungi as the villain of the piece. But, whatever the cause, its effect has been severe.

The Department now reports an improved state of affairs last year in some localities and once again eel grass was harvested in some localities, although in small quantities only. In a few areas there was no improvement.

Most people, especially those who live beside water, are familiar with eel grass lying on the surface of the water. Swimmers dread it. It is a favourite food for the birds and it provides material for making insulating blankets. So with the resumption of this harvest from the waters we may hear of the renewal of the contribution of eel grass, although necessarily small, to the insulation which construction requires. The value of weather stripping and insulation of all kinds used by that industry in 1936 was over \$300,000, according to reports issued by the Dominion Bureau of Statistics.

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No. 176. Thurs. March 25, 1937 - Aliens of British Origin in Canada

There are in Canada 345,000 persons who were born in the United States and, of these, 250,000 have become naturalized citizens of the Dominion, according to the last Census.

More than half of the 345,000 were of British racial origin, so that they could hardly be described as foreigners. They were like wanderers coming back home to the Empire of their fathers. Many of them were the sons and daughters of Canadians who had crossed the border and had become naturalized citizens of the United States. Perhaps that is why many of them did not think it necessary to take out naturalization papers. Out of these 174,000 immigrants of British origin from the United States, only 72 per cent did so. Those who did not are aliens in fact.

There are some quite interesting sidelights on these immigrants from the United States who are of English, Irish and Scots stock. Only 71 per cent of the English thought it worth while to become Canadians, while 72 per cent of the Irish did so and 76 per cent of the Scots.

Take those over 21 years of age, the age of choice, and divide them into the sexes and you have still more interesting facts. Only 64 per cent of the men of English origin became naturalized, while 80 per cent of the women did, 66 per cent of the men of Irish blood became Canadians and 80 per cent of the women, while 69 per cent of the Scots males dug themselves in but 83 per cent of the women did likewise.

Of course, when a woman marries she assumes automatically the nationality of her husband according to Canadian law but, even allowing for that, it is evident that the women are more particular about acquiring Canadian citizenship and the Scottish women the readiest of the three leading British races.

The figures are taken from the Census reports issued by the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 177. Fri. March 26, 1937 - Asparagus

Garden asparagus is a native of the north temperate zone of the old world. The plant grows wild on coasts and sandy areas in the south of England; and on the steppes of Russia it is so abundant that it is eaten by cattle like grass. It has become extensively naturalized in North America, especially around salt marshes from New Brunswick to Virginia, sparingly along roadsides and fields in the interior, and also on the Pacific Coast. Since Greek and Roman times the young shoots have been in high repute as a culinary vegetable.

Asparagus is grown extensively in private gardens as well as for the market. If properly treated the asparagus beds will continue to bear well for several years. Most of the tender shoots are eaten fresh but large quantities are canned and otherwise preserved. The pulp is also preserved by canning. Asparagus is also dried, especially in European countries, in which state it may be kept indefinitely.

Garden asparagus is the most valuable species of some 120 of a genus of plants of the lily family. Several climbing species are grown as house plants and in green-houses for their ornamental foliage. The so-called asparagus fern, native to South Africa, is an especially elegant plant, highly prized for its delicate, feathery branches. The vine-like smilax of the florists is also a native of South Africa.

The production of canned asparagus in Canada last year was two and three-quarter million pounds. We imported almost 300,000 pounds, mainly from the United States according to External Trade reports by the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 178. Sat. March 27, 1937 - Canada's Trade with the Dutch West Indies

While the name of Holland, or the Netherlands as we now more frequently term that country, is associated as a colonial power with the East Indies rather than the West Indies, still there are important Dutch possessions in the western archipelago with which Canada has a close trade connection. It has always been a friendly connection and, comparatively speaking, it has been an important commercial relation.

Surinam, or Dutch Guiana, is comprised under the official title of the "Netherlands West Indies" and it has a special interest for us because the colony was founded by Lord Willoughby, then governor of Barbados, in 1650 and was exchanged 17 years later, at the peace of Breda, for what is now New York. It finally became Dutch in 1815.

Surinam has an area of 46,000 square miles, or slightly larger than Newfoundland and a population of about 110,000, exclusive of the forest aborigines. Only one-tenth of the country is settled and most of the plantations lie along the shores of the Surinam River, and Paramaribo, the capital, stands near its mouth. Ocean going vessels can travel 40 miles up the Surinam. In the south are impenetrable forests and savannahs.

The Dutch West Indian islands include Curaçao, Bonaire, Aruba, part of the St. Martin, St. Eustatius and Saba.

The only import Canada got from these Dutch possessions last year was crude petroleum to the value of \$273,000, and the Canadian exports totalled \$142,000, chief of



were flour at about \$50,000, rubber tires \$20,000, and a great variety of other commodities such as canned salmon, vegetables, rubber footwear, evaporated milk, cotton and silk manufactures, paper, whiskey, and medical preparations, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 179. Sun. March 28, 1937 - Benevolent Institutions

No chapter in the later history of Canada shows more progress than that which relates to the field of child welfare and the institutional care of the indigent aged and infirm. Every province in Canada has today well organized public welfare departments under the control of one or another of the various provincial departments.

The Dominion Council of Health cooperates in this work with the provincial authorities but national leadership in this field must remain with the provinces and their municipalities, since the Dominion Government has neither advisory nor supervisory powers in relation to public welfare reform in the provinces.

The quinquennial census of charitable and benevolent institutions carried out last year showed 454 institutions and social welfare agencies devoted exclusively to the care of orphans, dependent and neglected children and the aged of both sexes. These comprised 136 homes for adults, 87 for adults and children, 117 orphanages, 13 day nurseries, etc.

There were 15,000 adults under care, of whom more than half were females, 33,000 children, of whom more than half were boys and a total of 48,000 in all institutions. It is a fine tribute to the instincts of many Canadian people that there are more than 13,000 of these little orphan children under care in free or wage homes and other institutions awaiting legal adoption by men and women who will try hard to take the place of the fathers and mothers who have gone.

This information comes from the Institutional Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 180. Mon. March 29, 1937 - Agricultural Machinery

With the approach of another spring, Canadian farmers are busy making preparations for the sowing of the crops, on the outcome of which depends so much the welfare of all parts of Canada. In modern agriculture, implements and machinery are necessary aids to the efficiency in the business of farming. They lighten the toil of the farmer and also permit him to perform in a few hours tasks which formerly took days. Thus the output per man has increased, making possible a rise in the standard of living, which has been particularly marked since the beginning of the 19th century.

About the middle of the 19th century, the present farm implement industry began to take form. Several of the present-day implement firms had their origin in that period. In Canada to-day there are 34 plants in operation. During the past 17 years, Canadian farmers have purchased an average of 52 million dollars a year. In years of good crops and satisfactory prices, this average has been considerably exceeded, while in difficult years such as have just passed, annual purchases of machinery have fallen as low as 8 million dollars. According to the Census of 1931, the value of implements and machinery on Canadian farms was 651 million dollars. Of this amount, 55 per cent

was located on farms in the Prairie Provinces, where an extensive system of agriculture is practised.

Of late years, the tractor has become increasingly important as a source of farm power. In 1931, there were 106,000 tractors on farms in Canada. During the period of low prices for farm crops and low yields, many farmers reverted to horses. For the most part, this reversion was temporary, and tractor sales have again been increasing. Among the many items of machinery on Canadian farms in 1931, there were 431,000 binders, 431,000 cream separators and 106,000 threshing machines. Truly, agriculture has been mechanized and the possible future developments in this field show as yet no limitations.

The foregoing is from the Agricultural Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 181. Tues. March 30, 1937 - White Grub

Have you ever noticed when visiting the country during the season of preparing the land for seed that the best farmers allow their poultry to run loose in the fields? A city man, accustomed to think of hens as kept in wire-encircled yards, might think there was a little bit of carelessness there, but the very reverse is the case. The busy hen is doing a most useful work, comparable with the value of the eggs she lays.

Watch the hen pecking away industriously behind the ploughman as he turns the soil. Sometimes the pigs join in the game. They are feeding on the enemy grubs that have been developing in the pipelines in which the mother beetles laid their eggs, and which the ploughshare has uncovered. Occasionally the robins, quails and skunks take a hand in helping the farmer in thus ridding his soil of the pests.

The White Grub is one of the worst of these. Ordinarily it lives on grass roots but it likes potatoes, the roots of corn, wheat, oats, asters, geraniums, strawberries and roses. Entomologists of the Dominion Department of Agriculture made an examination of many farms in Eastern Ontario two or three years ago and found an average loss of \$188 per farm.

The May beetles which lay the eggs that become white grub are burly brown insects which fly about at night. In 1934 a major flight of them caused much destruction by defoliating trees and shrubs in over 4,000 square miles of southern Quebec.

The people of Canada are dependent upon remedies other than those provided by nature for the extermination of pests and insects. Over \$50,000 worth of insecticides are made yearly, according to the General Manufactures Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 182. Wed. March 31 1937 What about Wheat Sale?

All through the long winter months and before he did his fall ploughing, the busy Canadian farmer has been carefully reviewing the wheat prospects and making up his mind what exactly is to be his programme during the summer months to come. So many things have to be considered in his calculations. Perhaps it may be helpful to say a word about the international wheat situation.



Canadian wheat prices have been reigning for several weeks back at their highest levels since the beginning of the depression. The principal factors imparting strength to prices have been the sporadic high European demand for wheat and the small supplies remaining in the export countries. World shipments which reflect the international demand for wheat have been at an exceptionally high level, averaging over 14 million bushels weekly since January 1.

The world movement will obviously have to decline from this level between now and July 31, because the exporting countries have total supplies of only 208 million bushels available during the remaining 19 weeks of the current crop season. These supplies are distributed as follows: Canada has an export surplus of 60 million bushels, in excess of wheat needed for carry-over stocks. Argentina has 63 millions still for export, although some of this surplus will be needed for trading material between August and December. Australia's export surplus now stands at 45 million bushels, but some of this surplus likewise will be needed for trading material in the autumn months. The Danubian countries will be able to export 20 millions, while India will have a surplus of 20 millions available by May. The total of 208 million bushels allows average weekly world shipments of almost 11 million bushels between now and July 31.

With world surpluses of wheat likely to be cleaned up by midsummer, the export outlook for the new Canadian crop is particularly promising. This outlook will be affected, of course, by the progress of the wheat crops in western Europe and the United States. So says the Agriculture Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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Canada. Statistics Division

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DEPARTMENT OF  
TRADE AND COMMERCE



CANADA

**A FACT A DAY ABOUT CANADA**

FROM THE

**DOMINION BUREAU OF STATISTICS**

WAS SUPPLIED TO THE

**CANADIAN BROADCASTING CORPORATION**

DURING APRIL 1937.

**THIRD SERIES**



Published by Authority of the HON. W. D. EULER, M.P.,  
Minister of Trade and Commerce.

Price 25 cents per annum



## Contents

- |   |   |
|---|---|
| 183. A Marvellous Machine.                    | 198. Food Products of the Manufacturing Industry. |
| 184. The Coronation Stone.                    |   |
| 185. Conserving Bird Life.                    | 199. Charcoal.                                    |
| 186. Birth Stones.                            | 200. Religious Literature.                        |
| 187. Sweet Potatoes.                          | 201. Highway Crossings.                           |
| 188. A Service to the Public.                 | 202. Busy Hands.                                  |
| 189. Canada's Trade with Panama.              | 203. Streamlined Hogs.                            |
| 190. Where Canada Gets Her Sugar.             | 204. Canadian Coal.                               |
| 191. Bone China.                              | 205. Overseas Visitors Bring Their Cars.          |
| 192. Canada's Trade with United States.       | 206. Highway of Empire.                           |
| 193. Cut Flowers.                             | 207. The Martyr Saint of England.                 |
| 194. Canada's Leading Manufacturing Industry. | 208. Waterproof Clothing.                         |
|   | 209. Phosphate for the Farm.                      |
| 195. Diamonds.                                | 210. Meat for Great Britain.                      |
| 196. Price Relationships.                     | 211. The Dairying Industry of Canada.             |
| 197. Rubber Tires on Farm Fields.             | 212. A Hint to Too Plump People.                  |

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Note:- A Fact a Day is broadcast over the Corporation's network immediately after the Canadian Press News broadcast.

James Muir,  
Editor.

A Fact a Day about Canada  
from the  
Dominion Bureau of Statistics

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No. 183. Thurs. April 1, 1937 - A Marvellous Machine.

There are few industries in which machinery plays so important a part as in the manufacture of pulp and paper. The Fourdrinier machine on which most paper is made is almost a complete factory in itself. Wood pulp mixed with water to the consistency of thin soup is sprayed on a moving belt of bronze mesh at one end of the machine and by progressive screening, pressing and heating this thin film of pulp is converted into a sheet of dry paper at the other. The entire process takes only a few seconds. This enormous piece of machinery, costs over half a million dollars. It may be 300 feet in length, 15 feet in height, and 25 feet wide. It may weigh over 400 tons and can produce a continuous sheet of paper over 20 feet wide at the rate of 1200 feet a minute as long as it is in operation.

To the uninitiated observer the paper machine seems to be operating almost as if by magic. Only three or four men are to be seen taking the finished rolls from one end of the machine but the thousands of moving parts of this mechanical monster are under the constant supervision of the paper-maker and his assistants. However the entire machine can be operated by a staff of only six men.

The preparation of the pulp necessary to fill the maw of the paper machine involves a higher percentage of human labor but here also many improvements have been made in recent years. In the preparation of groundwood pulp, continuous grinders have largely taken the place of older types of pocket machines into which pulpwood had to be fed in batches, by hand. Until now, all the chemical pulp had to be cooked in huge digesters, a batch at a time. The latest development in this progressive industry is the continuous digester. The chipped wood is fed continuously into one end of the long metal cylinder containing this equipment and the cooked pulp comes out of the other as long as the machine is in operation. It would seem that in time the entire process from raw pulpwood to finished paper might be carried on continuously and mechanically.

At the present time the pulp and paper industry in Canada gives employment to over 27,000 men who produce paper products valued at over \$162,000,000, an average of over \$5,800 per employee every year, according to the Forestry Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce

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No. 184. Friday, April 2, 1937 - The Coronation Stone.

Stones and gems are prominent in our minds as the Coronation approaches but most prominent of all is the Stone of Destiny, on which the sovereign will be crowned.

The Stone of Destiny is only an oblong block of sandstone, but it is the most ancient and hallowed possession of the British race. It carried us back to Jacob in Palestine fleeing from his brother's wrath, 3,600 years ago. Weary and worn he lighted upon a place where his grandfather Abraham had built an altar. Taking one of the stones for a pillow he slept and dreamed of angels ascending and descending a ladder which reached to Heaven.



Later he entrusted that precious relic to Joseph, and the Israelites carried it with them on their way from Egypt to the Promised Land. Centuries later it found a corner in the Temple which Solomon built and it remained there until the captivity of Judah. Nebuchadnezzar took it away to Babylon. Jeremiah rescued the Stone of Destiny. He, along with the Princesses and a faithful few, departed for Spain where Dan, a brother of Joseph, had founded a colony in what is now Valencia.

The prophet and the Princess Royal, heiress to the throne of Israel, did not stay long there but travelled north to Erin. The Princess married Eochaid, the high king of Erin, and both were crowned on the Stone of Destiny at Tara. From that union there sprang a long line of Irish, Scottish and English sovereigns. Jeremiah was buried near Enniskillen. The religion of the Hebrews had become the religion of the country.

Nearly one thousand years later Fergus MacEarca founded the Kingdom of Argyll and sent for the Stone on which he was crowned at Iona. St. Columba died with his head pillowed upon it. The Stone remained in Scotland until Edward I of England removed it from Scone (see foot note) to Westminster. These are the traditions and records.

It may seem a far cry from ancient Egypt, but it is the fact that sandstone, similar to that of the Stone of Destiny, is quarried in several Canadian provinces. It is used for building and for making abrasives. In some years the production is about one million tons, according to the Mining Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

Note: Scone is pronounced Skoon.

No. 185. Sat. April 3, 1937 - Conserving Bird Life.

The economic value of native wild birds as a natural resource in North America actually runs into millions of dollars annually, but unfortunately too few persons fully realize the beneficial effects of wild birds in controlling the legions of insect pests and in destroying tons of noxious weed seeds of many kinds which they consume to the direct benefit of the agriculturist. Also, wild game birds are of value, not only as a natural food supply, but also as an object of sport. Sportsmen spend many thousands of dollars throughout Canada with business concerns dealing in hunting equipment and supplies and with transportation companies.

Native wild birds afford an important natural resource of great economic value, and their conservation is essential if this resource is to continue. As an aid toward the conservation of wild birds, it is necessary that certain exact data concerning their migration and general life history be available. The only satisfactory way in which much of the required information can be obtained is by marking the birds with numbered leg bands.

Because the birds are international, bird banding in North America must be international in scope. It is being administered in full cooperation by the National Parks Bureau, Ottawa, and the United States Bureau of Biological Survey at Washington, D.C.

Since 1920, over two million wild birds have been banded in North America. If a wild bird wearing a numbered metal leg band comes to your attention, you can assist the Canadian Government in studying wild bird life by reporting the number on the

band, the date on which the bird was taken, and the manner and locality in which it was taken. Your report should be sent to the National Parks Bureau, Ottawa, which will in turn advise you as to the kind of bird, and tell you when, where, and by whom it was banded.

This information comes to the Dominion Bureau of Statistics from the Department of Mines and Natural Resources.

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No. 186. Sun. April 4, 1937 - Birth Stones.

The four most precious species of the gem stones -- they will be much in evidence at the Coronation -- are diamonds, rubies, emeralds and sapphires, but there are many others which have a strong appeal to people.

Birthstones are popular. The story which occurs in the Book of Revelations, where the order in which the twelve foundation stones of the Holy City of Jerusalem is recorded, is supposed to have determined the order of birthstones. The names of these birthstones differ slightly but the earliest ones were based upon the foundation stones or upon the gems of high priest Aaron's breastplate.

The breastplate was set with twelve gems, each engraved with the sign of one of the twelve tribes of Israel. Superstitions concerning these twelve stones have persisted to the present day, especially in the wearing of birthstones. Josephus mentions the connection between Aaron's breastplate and the months of the year.

The following are the birthstones commonly used in this country: January, garnet; February, amethyst; March, bloodstone or aquamarine; April, diamond; May, emerald; June pearl or moonstone; July, ruby; August, sardonyx or peridot; September, sapphire; October, opal or tourmaline; November, topaz; December, turquoise. The pearl is not really a stone but it is in the front rank of gems.

Imports of precious stones and imitations, exclusive of diamonds and pearls, of which there will be something said later, were valued at about one-quarter of a million dollars last year, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 187. Mon. April 5, 1937 - Sweet Potatoes.

A favorite dish with many people, especially those who have acquired a taste for it while on their travels in tropical countries, is the sweet potato, variously named in various places. It is a perennial herb with a long slender stem which sometimes climbs by twining. It forms underground a large spindle-shaped tube as a reservoir of starchy and sweet tasting matter.

The sweet potatoes we import are not very large as a rule but, as usually cultivated, these tubers ordinarily weight from two pounds to twelve pounds each; however, by being left in the ground for a few years they may grow to thirty pounds or even more. The herb is a native probably of South America but is grown extensively as a food crop in most warm countries.

The name potato is a corruption of batatas, the native name of the sweet potato. The latter was known in Europe at an earlier date than the common potato and the two



plants were often confused. These sweet potatoes are often called yams in the West Indies and South America.

We imported 50,000 cwt. of sweet potatoes last year, mainly from the United States, but we get supplies also from the West Indian Islands and British Guiana, and occasionally some from Hong Kong, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 188. Tues. April 6, 1937 - A Service to the Public.

One of the most gratifying trends in Canadian domestic life is the steady decrease in the infantile and maternal death rate, and one of the organizations which has helped largely to bring this about is the Victorian Order of Nurses.

The Victorian Order was founded in 1897 by a Government House Lady, Ishbel, Marchioness of Aberdeen and Temair. She raised a fund by appeal throughout Canada to inaugurate a National Service of Nursing in the Home as a commemoration of the great Queen's Diamond Jubilee. Nursing Homes were established in various cities with local branches throughout the Dominion.

The Countess of Minto, recognizing the success of five hospitals established by the Order, raised a further fund to build and equip 44 similar hospitals in the North West. Eventually all were absorbed by local authorities and that phase of the work of the Order terminated. With the coming of official public health nursing organizations and municipal hospitals, the Victorian Order concentrated its efforts on work through the medium of branches established in the more closely populated centres.

The nurses of the Order have played a noble part in emergencies. Four of them endured the hardships of the Klondyke Trail and stayed there three years; 52 enlisted in the first year of the Great War. The military authorities placed all district nursing work in the hands of the Order on the occasion of the Halifax disaster in 1917 when a munition ship blew up, causing 1800 deaths and nearly 3,000 casualties.

Today the Order has 78 local branches across Canada, with 343 highly trained registered nurses whose services are directed by a physician. But in many parts of Canada there is no organized home nursing service and many people who urgently need skilled nursing care are not being served. To extend the service an appeal is being made to the public for funds.

The Order treated 85,000 patients last year to whom 751,000 visits were paid, most of them free, 405,000 being for maternity and infant welfare calls, according to the records of the Institutional Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 189. Wed. April 7, 1937 - Canada's Trade with Panama

The Republic of Panama is a small country of 32,000 square miles, somewhat larger than New Brunswick. It was formerly one of the nine Departments of Colombia. The separation arose in 1903 from the exigencies of the situation regarding the Panama Canal. Independence was asserted and the government was recognized by the

United States and other powers. In the same year the treaty which provided for the construction of the Canal was signed by Panama and the United States. The canal was opened to navigation in 1914.

The population is about half a million. The people are a mixed race of Spanish, Indian and Negro origin. They are chiefly cattle raisers for the markets of the Canal Zone which is five miles wide on either side of the water-way. Although the rainfall is abundant and the soil very fertile, more than half the land is unoccupied and the remainder is inadequately cultivated. The chief crop is bananas, and small amounts of coffee, cocoa and rubber are produced on plantations. The interior is elevated. One of the points of interest is the ruins of the old cathedral, looted and burned by Morgan, the pirate. The new town of Panama was built by Morgan in 1671, after he had sacked the old town, which was founded in 1519.

Bananas are the principal crop we get from Panama. As the imports of that country are almost entirely manufactured goods and foodstuffs, Canada sends a great variety of commodities, the principal being Douglas fir, paper, wheat, rubber tires and evaporated milk. The total was valued at over \$300,000 last year, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 190. Thurs. April 8, 1937 - Where Canada Gets Her Sugar.

Sugar, so far as Canada is concerned, is almost entirely a British Empire product. That is, the raw cane sugar which we import is brought from Empire countries. Last year the Empire supplied Canada with considerably over one billion pounds of the raw product for refining in this Dominion while the total that came from other countries, Cuba and Peru only, was slightly over six million pounds. We imported on a per capita basis about one hundred pounds for every man, woman and child, which goes to show how large a part sugar plays in our domestic economy. We also made 120 million pounds of sugar from beets grown in Canada.

The largest quantity from any country was from British Guiana at nearly 260 million pounds, Jamaica coming next with 140 million. From the Fiji Islands in the Southern Pacific we got 134 million, followed closely by Barbados and Trinidad. The sugar cane is of prolific growth.

We got large supplies of raw sugar also from Australia and British South Africa while British East Africa in late years has been taking a hand in this trade, although the imports from that country are not yet quite so large as from the smaller islands of the British West Indies, whose chief export, so far as Canada is concerned, is raw sugar, according to External Trade reports issued by the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 191. Fri. April 9, 1937 - Bone China.

We were talking about pottery and chinaware a few days ago and mentioned the high excellence which English porcelain had attained in the last two or three centuries, rivalling the best that the Chinese in ancient days had created, except from the point of view of artistic design. Critics aver there is nothing finer than the designs of the Chinese potter.



It was in the 1700's that the greatest of the modern advances were made in the manufacture of English porcelain. The clay had been famous for many centuries before that. The Romans, when they conquered Britain, made vessels from the native clays to grace the equipments of the Emperor Hadrian. One of the most valuable legacies these Roman colonists left was the potter's wheel.

But it was in the 1700's, about the time of the American Revolution, that English china, discarding part of its borrowed traditions, assumed a character of its own. A peculiar china body was produced, of which bone ash and feldspar formed the chief components. In the following century practically all the English factories made the so-called "bone porcelain" with a body consisting of china stone, china clay and bone ash. Bone porcelains came to be made in Germany, France and Sweden. Some is being made in Canada today.

Last year we imported bone ash, which is used for other purposes also such as cleaning jewelry, making artificial fertilizers and in making cups for commercial refining of precious metals, to the amount of 26,000 cwt, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 192. Sat. April 10, 1937 -- Canada's Trade with the United States

Most people are familiar with the trend of Canadian trade with the United States, as shown by statements issued at Ottawa, and there will be added interest in an official statement regarding that trade from the capital of the big neighbour itself.

United States exports in 1936 to Canada, says Washington, increased 19 per cent in value under the terms of the reciprocal trade agreement. As a result the trade reached a level 82 per cent higher than in 1933, the lowest year of the depression period on this continent. The improvement in 1936 involved an expansion in all classes of commodities; finished manufactured exports increased 28 per cent, semi-manufactures 13, crude materials 10 and foodstuffs 24 per cent as compared with 1935. Leading commodities responsible for major parts of these increases were machinery, automobiles, iron and steel manufactures, textile manufactures, lumber, crude petroleum, coal and raw cotton.

Imports from Canada in 1936 were 31 per cent larger in value than in 1935. Purchases of a wide range of commodities increased, among them being commodities not affected by the terms of the agreement as well as many on which duties were lowered. Important factors were the small crop of hard wheat and barley in the United States, high prices of meats and the increased activity of industries. Importation of crude foodstuffs increased 60 per cent, manufactured foodstuffs and beverages 65, semi-manufactures 25 and finished manufactures 12 per cent. Amongst the increased commodities were furs, cheese, wheat, barley, abrasives, asbestos, nickel, lumber and newsprint.

The foregoing is taken from a Summary of United States Trade, sent to the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 193. Sun. April 11, 1937 - Cut Flowers.

Most people love flowers and it is still a mark of good taste to present a lady with flowers, even in this fast-moving age. A dinner table without flowers to grace it is considered a bare sort of thing in most households. We cheer our sick folk with them, and when we die our friends send flowers as a little tribute of affection.

The cut flower business, therefore, is one of fairly large proportions, and as our out-of-doors is somewhat cold for a part of the year, most of these flowers are grown under glass. That the wholesale price of cut flowers and greens from green-houses was about one and three quarter million dollars last year shows how large the business is. The cut flowers grown in the open had a wholesale value of only \$38,000.

Roses, of course, are the prime favourites. There were about ten and a half million of them sold wholesale and the average price was over six dollars per hundred. They would be more than that by retail. Carnations were the next favourite flower, over four and a half million being sold.

But by far the most expensive was the orchid, the wholesale price of a hundred being over \$53. Gardenias were the second most expensive at \$25 per hundred, lilies \$11, calla lilies \$9, large flowered chrysanthemums \$8. The more moderately priced were corn flower, larkspur, sweet peas and violets. It should be pointed out that wholesale and retail prices of cut flowers must differ widely as cut flowers are very perishable and serious losses are often sustained.

This information is taken from a report issued by the Agricultural Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 194. Mon. April 12, 1937 - Canada's Leading Manufacturing Industry.

The pulp and paper industry, in the number of employees and distribution of wages, is Canada's leading manufacturing business. It is more than that, for Canada is the world's largest producer and exporter of newsprint paper, supplying an average of over one-third of the world's yearly requirements. About 92 per cent of our annual production is exported, with the United States consuming the bulk of this supply. The United Kingdom and Australia are large customers. Normally about 11 per cent goes to the Empire and the remaining 89 per cent to other countries.

Production of newsprint during the past two years has surpassed the high level of 1929 and the estimated output of 3,191,000 tons in 1936 is a new high mark in the history of the industry. This figure represents a gain of 70 per cent over the low point of the depression.

It is curious to note, however, that the prices of newsprint continued to fall long after the low point of the depression was passed. The precipitous decline which began in 1928 continued downward until 1935, since then a gradual upward trend has been in evidence.

This great industry employs an army of 27,000 men, according to the Forestry Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 195. Tues. April 13, 1937 - Diamonds.

Diamonds will be very much in evidence at the Coronation. It is the chief of precious stones. It has long been held appropriate for the engagement ring, because it was thought to soften anger, strengthen love and promote harmony between husband and wife. The derivation of the word is Greek, from adamas, meaning invincible.

All the diamonds known in ancient times were obtained from the neighbourhood of Golconda in India and Indian lapidaries were the first to realize that the diamond could be ground with its own powder. Diamonds were first cut in symmetrical shape in Europe in the 1400's. Since then, they have been discovered in Brazil, Australia, Russia, South Africa, Borneo and other places in the Orient. Today, South Africa supplies all but a small proportion of the world's diamonds. Stones devoid of any tinge of colour are said to be of the "first water".

The most famous and the oldest diamond is the Koh-i-nor, or Mountain of Light, believed to have been found in India four or five thousand years ago. It was presented to Queen Victoria and is now in the collection of Crown Jewels. The largest diamond in the world is the Cullinan, found in South Africa and presented to Edward VII by the Transvaal Government. It weighed 1 1-3 pounds, was divided into nine large stones and a number of brilliants and set in His Majesty's crown and sceptre.

Other famous diamonds are the Florentine Brilliant, bought from a Swiss soldier for 40 cents, the Great Mogul, the French Regent and the Orloff. The latter was stolen from the eye of an idol and eventually found a place in the sceptre of Catherine of Russia.

We imported last year close to one million dollars worth of unset diamonds, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 196. Wed. April 14, 1937 - Price Relationships.

The behaviour of commodity markets is attracting more attention these days than for many years past. For some people the rapid advances which have occurred give cause for misgivings and alarm, but to others they mean a better living and increased purchasing power. It is difficult to determine just how far the good effects will cancel the unfavourable ones, because a rise which is too rapid and too prolonged would be unfortunate for all classes of the community. This was clearly demonstrated between 1914 and 1920, when the consumers' dollar shrank until it would purchase only a little more than half as much as in 1913.

So far, however, it seems fairly certain that benefits from the recent advance have considerably exceeded the unfavourable effects. One of the most important benefits has been to improve the value of farm products so that now a bushel of wheat or a hundredweight of livestock will exchange for about the same quantities of the necessities of life as they did in 1928 and 1929.

Besides improving the position of the farmer, who supports nearly one-half of Canada's population, this means more work for wage earners who form an important proportion of the other half, and so far, living costs have not risen sufficiently to offset the resultant increase in money income. It is to be hoped that excessive

speculation by causing further abnormal increases in commodity prices will not undo the good which has come from recent advances.

The foregoing is from the Internal Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 197. Thurs. April 15, 1937 - Rubber Tires on Farm Fields.

Those people old enough to remember how ludicrous pneumatic tires looked when they first appeared on the racing track will remember that the enterprising bicyclists who dared public opinion won easily from the riders who preferred the thin solid-tired wheels and gradually the public became used to the then uncouth appearance of the new wheels, as they did to the sight of a carriage without a fine horse between the shafts. These new tires were not called rubber wheels but some improvised pronunciation of that difficult word "caoutchouc".

So the world goes on in progress. One of the very latest things to be seen on the farm is a rubber-tired wheel to take the place of the steel wheel on separators, combines, binders and drills which are heavy to pull on soft or rough ground and must be operated at slow speeds. The Department of Agriculture, after paying close attention to the subject, declares positively that the "rolling resistance" of rubber-tired wheels for this purpose is from 40 to 60 per cent less than that of the steel wheels. Accordingly the rubber tires on these machines reduce the damage done by excessive vibration and probably increase the life of the machines.

Lighter machinery, such as mowers, rakes, planters, cultivators, weeders, manure spreaders and potato machinery are said to be particularly suitable to rubber tires. They can be operated at higher speeds and with less wheel damage to the crop. Rubber tires for the plough and the one-way disc are not thought to be so satisfactory as the steel wheels.

This means more and more rubber for business which is constantly expanding into new fields. Imports of raw rubber at around 60 million pounds have much more than doubled in the last twelve or thirteen years, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 198. Fri. April 16, 1937 - Food Products of the Manufacturing Industry.

When we speak of the manufacturing industries, we are apt to be thinking of something other than food -- perhaps textiles. Yet the preparation of food is the main activity in all the wide range of manufacturing. This is remarkable when we consider that a great many items in our menu -- potatoes and apples for example -- are not subjected to any special manufacturing or preparational process before reaching the kitchen of the housewife, but come to us as Mother Earth has finished them herself.

These food industries have an annual output of a factory value of over \$600,000,000. The flour mills and the bakeries combined lead the way, of course. The value of the output of the flour and feed mills is close to \$100,000,000 while the bread factories reach \$60,000,000 with biscuits and confectionery at over \$40,000,000.



Meats that pass through the factory claimed about \$133,000,000, butter and cheese \$100,000,000. This would seem to demonstrate that bread, butter and cheese are the main props of human life so far as Canada is concerned. Fruit and vegetable preparations account for \$38,000,000 and sugar itself just a shade less. Cured fish represents \$23,000,000. By the way, these are 1935 figures.

Then there are such additions to the family cupboard as breakfast foods, macaroni, rice, condensed milk, tea, coffee, and spices, all of which are over the million mark, according to the Manufacturing Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 199. Sat. April 17, 1937 - Charcoal.

Several centuries ago, charcoal was used for fuel in the making of iron and as a result great numbers of trees were cut down to meet the demand for charcoal. The story is told of the drop in the production of iron in England due to laws passed by Queen Elizabeth to prevent the destruction of the forests. These laws almost brought England's iron industry to an end.

There are two types of charcoal in use at the present time, wood and animal. Both are prepared in somewhat the same way. The piles of wood or bones are heated without access of air, the gases contained in them such as hydrogen, oxygen and nitrogen pass off leaving a blackened mass.

The charcoal formed from bones is called boneblack and is used for decolourizing sugar and oils. The colouring matter in the sugar or oil sticks to the surface of the boneblack.

The wood charcoal is used chiefly for fuel and sometimes for filtering and as a deoderant.

Practically all of the wood charcoal is produced in the Province of Quebec where it is an ancient industry. The kilns in which the wood is superheated to make charcoal are common sights in some districts. Many farmers engage in its making as one of their activities. The output runs to around 40 million pounds in a year valued at about \$358,000, according to the Manufactures Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 200. Sun. April 18, 1937 - Religious Literature.

The Family Bible is rarely seen nowadays on the parlour table. Perhaps families do not possess them to the extent they did half a century ago. However, that they are still used and much respected is shown by the acceptance by a Canadian judge the other day of the record in a Family Bible as sufficient evidence of the date of birth of an individual in a case that came before him. The individual concerned had no birth certificate.

There are no bibles printed in Canada, so that the importations present a fairly accurate picture of the number that are sold in the Dominion from year to year. The importation of bibles, prayer books, psalm and hymn books, religious tracts and Sunday School lesson pictures is decreasing. Ten years ago we imported these religious publications to the value of over half a million dollars,

whereas in 1936 the value was only \$371,000, yet the population of Canada is increasing.

Another change in the importation is that, whereas the largest supply of these religious publications used to come from Great Britain, the largest consignment now comes from the United States, thereby following the trend of non-religious literature.

The countries of origin of the 1936 purchase of bibles and other religious work were as follows: United States \$134,000, United Kingdom \$106,000, Belgium \$78,000, France \$21,000, Germany \$11,000, Switzerland \$10,000 and Italy \$5,000, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 201. Mon. April 19, 1937 -- Highway Crossings.

While most of us are glad that spring is here, there are men in Canada to whom the departure of winter has brought additional worries. They are those human beings who stand behind the throttle of a snorting mass of metal known as a locomotive. Every minute of the trip is one of nerve-racking suspense due chiefly to some careless, irresponsible motorist.

Highway crossings account for most of the accidents. During 1935 there were 121 people killed and 228 injured. These figures do not include the men whose nerves have been shattered and are forced to leave their jobs as trainmen. It is not an uncommon thing to see a "close shave" at a level crossing but it is cruel to see the motorist turn and wave a breezy salute, forgetting the shock he has given the train crew.

Motorists accounted for 319 accidents and 106 of the occupants of the automobiles were killed. Realizing the fact that a train must travel along a given path of steel and that every engineer must be an efficient and experienced operator, it is evident that these accidents are mostly due to the motorist. In addition, the railway companies have installed bells, wig-wags, built gates, bridges and subways and even placed watchmen at crossings where traffic is heavy. The road markers indicate the approach of every railway crossing.

Canada has about 32,000 highway crossings of which over 27,000 are in the rural districts. The majority of these are unprotected but with a little common sense on the part of a number of drivers, accidents can be avoided. The future may bring about a solution to the question of the level crossing but as yet it presents a great problem.

These figures are taken from a report issued by the Transportation Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 202. Tues. April 20, 1937 -- Busy Hands.

The old saying about Satan finding work for idle hands to do still holds good. Children left to amuse themselves in their spare time are more likely to get into mischief than those who are employed at some hobby or whose interests are directed to some worthy organization. One look at the shiny-cheeked little boy in his Cub uniform or at a dancing little elf in a Brownie suit, gives us a comfortable feeling, knowing that here are children who are interested in something worth while.



In Canada there are over 14,000 Brownies and 27,000 Girl Guides. This organization has reached young girls from coast to coast and even in the Northwest Territories there are 18 little Brownies and 11 Guides in its membership. Besides the Brownies and Guides, there are Guiders and Commissioners whose number brings the total membership up to 47,000.

The brother organization has 29,000 Wolf Cubs, 43,000 Boy Scouts and 3,000 Rover Scouts. The increase in numbers since 1917 may be considered a good omen for the future of young Canadians. Wolf Cubs in 1917 numbered 1,000, in 1935 there were 29,000. In the same period the Boy Scouts increased from 17,000 to 43,000. Rover Scouts in 1922 were 90, in 1935 there were 3,000.

In many of our schools, young children are taught the elements of social service as well as personal hygiene in the Junior Red Cross. There are 325,000 young Canadians who wear the familiar Red Cross button.

In the rural districts of Canada, there are 1,900 clubs with a membership of 30,000 boys and girls engaged in agricultural projects such as raising livestock and field crops. Home economics and local leadership are also features of these farm clubs.

These figures are from the Education Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 203. Wed. April 21, 1937 - Streamlined Hogs.

When we were told the other day in a newspaper story that "streamlined hogs" were in the offing, many people, no doubt, just dismissed it as a yarn, but that brightly written official publication at Regina, "Cooperation and Market News" stresses the development and gives the reasons. Incidentally it provides another demonstration that truth is stranger than fiction.

The reason why the roly-poly, lardy porkers are on their way out is because housewives are using less and less lard each year as chemists perfect the processes of making vegetable cooking oils. Consequently, there is less and less market for the fatty-type pig. Perhaps we shall enjoy our breakfast bacon all the more, if there is a little more lean meat in it.

The prediction is made that in twenty years from now very few pigs will be given an ear of corn to munch voraciously. The farmer will haul his crop of corn to a chemical processing plant, where the fattening starch will be removed for making syrups and alcohol for motor fuel. The residue of gluten and oil press will then go back to the hog pen.

A leading scientist says that automobile motors will be developed to utilize solid fuel made from starch in corn and other crops.

Meanwhile the production of lard in Canada is running around 50 million pounds in a year at a factory value between four and a half and five million dollars, according to the Manufacturing Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 204. Thurs. April 22, 1937 - Canadian Coal.

Coal is a mineral fuel formed from vegetation that flourished on this earth millions and even hundreds of millions of years ago. The process has been one of luxuriant growth, death, partial decay, burial beneath sediments and a further slow decomposition induced by heat resulting from the weight of the overlying sediments and by lateral pressure exerted by mountain-making forces. Thus we have coals showing all stages in the process from peat to the hardest coal, or even graphite.

For scientific and commercial purposes coal has been divided into four main classes: lignite, sub-bituminous, bituminous and anthracite. Although there is no sharp line separating these classes, arbitrary boundaries between them have been established based on certain characteristics, such as density and lustre, carbon content, their heat producing value and their coking properties. Ordinary coke, produced from bituminous coal, represents the fixed carbon of the coal together with its original ash content.

All of these classes of coal are found in Canada, although anthracite is limited to a few small isolated areas in the Rocky Mountains.

The output of coal in Canada last year was over 15 million tons. Nova Scotia's production of 6,600,000 tons was about one million more than Alberta's. British Columbia reported close to one and a half million. Less than half of Alberta's production last year was bituminous and the bulk of the rest was sub-bituminous. Saskatchewan and Manitoba produced lignite only, and New Brunswick bituminous, according to the Mining Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 205. Fri. April 23, 1937 - Many Overseas Visitors Bring Their Cars.

It must be the gypsy in people the world over that gave the Department of National Revenue an opportunity to issue over four million permits for tourist automobiles in 1936.

Of course our neighbours to the south run back and forth frequently just as all good neighbours do and likely most of the 2,800,000 tourist permits issued for cars staying not more than 48 hours were used by those living along the Border. About 1,200,000 cars from the United States came on 60-day permits. New York State and Michigan licence plates were in the majority.

Far across the six or seven thousand miles of water, the urge to take the family car with them for travelling, possessed our Australian cousins and during last year, six cars came to Canada. Not to be outdone by the Australians, some of the people from Ceylon, China, Hong Kong and Japan brought their cars.

From Europe there came automobiles from Belgium, Germany, France, Italy and Switzerland. Naturally the United Kingdom was well represented but whether the 55 cars were driven from the right-hand side or not is not stated.

From the Hawaiian Islands came 281 cars, 65 from the West Indies and 18 from the Philippines. Some day we may take the trip that the car from Chile took and say hello to the owners of the four cars from Peru and the three from Colombia, not forgetting the one from Venezuela. Likely we would pass some of the 82 cars that came from Panama and several of the 78 from Mexico on our way.



Forty-nine cars from Alaska and 20 from Newfoundland helped to make up the total of over 600 foreign cars, exclusive of those of United States registration, which entered Canada on tourist permits in 1936. This was more than twice the number in 1935, according to a report on the Tourist Trade of Canadian issued by the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 206. Sat. April 24, 1937 - Highway of Empire.

Many years ago, after the Pacific cable had been laid and it was proposed to lay another across the Atlantic in order to complete the All-Red Line around the globe, a great prime minister of Canada talked of making this country the Highway of Empire. Others since then, notably Premier Lyons of Australia, have used the phrase with reference to Canada.

It is not easy to calculate whether visitors from countries beyond the seas are using Canada as a Highway of Empire or just visiting us. It was easier in older days before the automobile arrived, for many of these passengers who arrive at Vancouver bring their cars with them and make their way across the continent by road and vice versa from the Maritime ports westward, yet it is certain that a very large percentage of them are on their way to and from Europe.

We had 550 visitors from Australia last year, 315 from New Zealand and 15 from the Fiji Islands. Most of these were going to or coming from the Old Lands of their ancestors.

We had 595 from China, 163 from Hong Kong, 176 from British India, 10 from Siam, 58 from Singapore, 148 from the Dutch East Indies. Most of these were going to points in Europe, some of them young chaps who were going back home for a well-earned holiday. A Canadian Broadcasting Corporation's broadcast one evening describing the departure of a boat train from Montreal, brought out that point clearly.

From the other side of the Atlantic we had 6,200 visitors from England, 1,400 from Scotland, 300 from France, 300 from Ireland, 222 from Germany, 120 from Wales and so on. Most of these were visiting friends in Canada and returned the way they came. There were 12,000 visitors from countries outside of the United States, according to a report on the 1936 Tourist Trade issued by the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 207. Sun. April 25, 1937 - The Martyr Saint of England.

Two days ago we celebrated St. George's Day, the date consecrated to George, patron soldier-saint of Merrie England. It was on April 23, 303 A.D. that this Christian martyr died for his faith at the early age of 33.

George came of a noble Christian family. He was born on the famed Plain of Roses of Sharon. He entered the Roman army as a mere boy and at 20 had become one of its most brilliant young officers. He was only 22 when he was entrusted with a mission to Britain by the Emperor Diocletian. It is claimed he was the instrument in the conversion of the Empress Helena to Christianity and, through her, her son Constantine who became the first Christian emperor of Rome. The story is told of his visiting Glastonbury to see the tomb of Joseph of Arimathea, said to be one of his ancestors.

He returned to Palestine and when Diocletian decreed the extermination of Christianity, the knight George set off despite the entreaties of his family to plead in Rome for the Christians. On the way he slew the dragon and rescued the Princess Sadra. Diocletian was merciless and sentenced his brilliant young commander to death. George was laid to rest among the roses of Sharon.

Three years later his friend Constantine became the first Christian emperor and chose George to be the patron saint of his native England. So came the people of England by George's Rose of Sharon and his splendid chivalry.

There are two and three-quarter million people of English origin in Canada. By country of origin they lead in six of the nine provinces of Canada, Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia, according to the last census of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 208. Mon. April 26, 1937 - Waterproof Clothing.

A word to eleventh-hour travellers to the Coronation, -- have you packed your mackintosh? Not that we who are staying at home wish to dampen the spirits of fortunate travellers, but then again, England has a reputation for a more humid atmosphere than ours has.

By the way, in the British Museum there is a satirical engraving by Crispin de Passe which shows monkeys starching Elizabethan ruffs. It seems that a few minutes' exposure to the rain made the old stately ruff a limp and pitiful object, and constant labour was required to follow the all-prevailing fashion. Our ladies will not be thus embarrassed.

Fortunately for men as well as women, Mackintosh was granted a patent for making waterproof cloth in 1823. This started the ball rolling. Because the first waterproof cloth was air-proof as well as waterproof and was thus detrimental to health, new substances had to be found with which to impregnate the cloth. The modern types of waterproof and oiled clothing are visible results of the success of many years work.

Canada's 15 establishments which reported the manufacture of waterproof clothing, not only protect the population from downfalls of rain but also from catching pneumonia while fishing or while braving the sea-spray. The production of such articles as coats, hats, suits and aprons amounted to a factory value of over one million dollars. Strange as it may seem, the United Kingdom sent us most of the \$50,000 worth of imported raincoats last year.

These figures were obtained from the Manufactures Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 209. Tues. April 27, 1937 - Phosphate for the Farm.

Fertilizing the farm is not such a dirty job as it used to be and while the modern way is cleaner, it also is more effective. There is diversity for diversified soils.

Rock phosphates enter largely into the picture. They contain calcium phosphate, derived from the bones of prehistoric animals, and are the chief source of phosphorus,



a small but very essential constituent of the muscles, nerves and brains of animals. Man derives his largest supply from such protein foods as beans, peas, oatmeal, cheese, meat and bread. Soluble phosphates are very necessary for plant growth and all vegetable foods contain a small percentage of phosphorus.

Phosphate rock, therefore, is a highly important ingredient in the manufacture of fertilizers for the farm. It was first discovered about the middle of last century beneath the great clay fields of Surrey in England. Since that time large deposits have been found in Belgium, France, Holland, South Carolina, Florida and Tennessee.

Between the years 1878 and 1892 the mining of apatite or mineral phosphate was an important industry in eastern Canada but cheaper foreign phosphate displaced that from Canadian mines.

Last year there were 53,000 tons of natural phosphate rock imported, chiefly for the manufacture of superphosphate. The Canadian production of superphosphate for fertilizing purposes amounted to 45,000 tons last year and the imports to 80,000 tons. Canadian farmers and gardeners bought 53,000 tons of superphosphate and 63 tons of natural phosphate rock during 1936, according to the Chemical Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 210. Wes. April 28, 1937 - Meat for Great Britain.

The great export of meats in March, the largest in more than a decade, has stimulated interest in the kind of meat which Great Britain favours, amongst the variety which Canada has to offer, for the great bulk of our meat exports goes to the United Kingdom. Without the Mother Country, that trade would be a comparatively small business indeed.

Certain countries specialize in certain kinds of meat. Canada's specialty is bacon, and it is notable that last year the Dominion was second as a supplier of bacon for the British breakfast table, coming behind only Denmark. Denmark sold over three million cwt. and Canada over one million, the nearest competitor being the Irish Free State with half a million cwt. Five years ago Canadian bacon had a very small place in the British market with less than 50,000 cwt.

Canada is nowhere in the mutton and lamb trade, New Zealand easily leading the market, with Australia second. New Zealand last year sent more than three and a half million cwt., a goodly quantity.

Argentina has a long lead in the British market with beef. Chilled beef from that country last year aggregated over seven million cwt., Uruguay and Brazil coming next with over half a million, which figures are supplied by the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 211. Thurs. April 29, 1937 - The Dairying Industry of Canada.

Dairying is one of the oldest and has become one of the most important of Canadian industries. The permanent establishment of cattle in Canada dates from about the year 1608, when Champlain brought a few head to the colony at Quebec. Cattle were placed in Acadia in 1632, and by 1671, according to a census of that year, the number had increased to 866.

Butter and cheese making were introduced by the early French colonists who had brought with them a knowledge of the art, and who soon were able to produce sufficient quantities for home requirements. With the arrival of the United Empire Loyalists the art of butter and cheese making was extended to Upper Canada and dairying commenced to occupy a fixed place in the commercial life of the country. Early records show that in 1801 there was a surplus of butter at Kingston, Ontario, and that some was exported to the United States. It was not until 1864, however, when the factory system was introduced that dairying entered upon the era of development, which has placed it in the forefront of the industries of Canada.

The value of all dairy products in Canada in 1935 is estimated at \$192,000,000. Creamery butter was valued at \$52,000,000, dairy butter \$18,000,000, factory cheese \$11,000,000, farm-made cheese \$111,000, milk consumed fresh or otherwise used \$86,000,000, skim milk and buttermilk \$8,000,000 and miscellaneous factory products \$17,000,000.

These figures are taken from a report on Dairy Factories issued by the Dominion Bureau of Statistics, Department of Trade and Commerce.

#### No. 212. Fri. April 30, 1937 - A Hint to too Plump People.

It is strange how people develop taste and prejudice regarding food, when there is neither rhyme nor reason to it. Canadians have their notions about food in abundance and one of them relates to mutton and lamb. As a people, we eat very little of it -- we eat more pork than any other meat.

Now the Dominion Department of Agriculture has quite a reputation for good advice regarding what we should eat and why. It tells us that the flavour of lamb combines well with all kinds of vegetables and it says that the lean, vitalizing meat and the extent to which vegetables are used with lamb meals no doubt accounts for the fact that persons eating meals built around this meat more readily control their weight. Indeed over-weight people with that menu reduce their circumference. This leads to the thought that the fat lady on exhibition in the midway at the Fall Fair is not given to lamb chops.

Although the Agricultural authorities declare that lamb is improving, we are consuming less than we did years ago. Prior to the Great War the Canadian consumption was over nine pounds per capita per annum; last year it was down to a little over six. In the United States it is about seven.

So far as physical appearance goes, just to mention one characteristic, the New Zealanders and Australians do not have to take back water from anybody, yet the former get away with over 100 pounds and the latter approach that per capita amount. The average of the United Kingdom people is 31 pounds. In France they eat just about the same amount of mutton and lamb as the Canadians, the Belgians and Germans about one pound, according to the Agricultural Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.











11-D-02

DEPARTMENT OF  
TRADE AND COMMERCE



**A FACT A DAY ABOUT CANADA**

FROM THE

**DOMINION BUREAU OF STATISTICS**

AS SUPPLIED TO THE

**CANADIAN BROADCASTING CORPORATION**

DURING MAY 1937.

**THIRD SERIES**



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Published by Authority of the HON. W. D. EULER, M.P.,  
Minister of Trade and Commerce.

Price 25 cents per annum



## Contents

- |                                      |                                   |
|--------------------------------------|-----------------------------------|
| 213. Water for the Prairie Farm.     | 229. Canada's Trade through the   |
| 214. Preservation of Wild Flowers.   | Panama Canal.                     |
| 215. Canadian Nails.                 | 230. Fresh Fruits from Abroad.    |
| 216. Sleepers.                       | 231. National Hospital Day and    |
| 217. Canada's Lumber Yard.           | Florence Nightingale.             |
| 218. Inland Fisheries.               | 232. Eels.                        |
| 219. The Canadian Horse Coming Back. | 233. Feathers and Down.           |
| 220. Canada's Trade with Haiti.      | 234. Vinegar.                     |
| 221. Mother's Day.                   | 235. Church Vestments.            |
| 222. The Emerald.                    | 236. Victoria Day.                |
| 223. Rabbits.                        | 237. Lower Lighting Costs.        |
| 224. Some Statistics Relative to     | 238. The Underpaid Rural Teacher. |
| the Coronation.                      | 239. From Anxiety to Optimism.    |
| 225. Food Exports in Relation to     | 240. Blossom Time. (Apples)       |
| Domestic Need.                       | 241. Canada's Trade with Belgium. |
| 226. Macaroni and Kindred Products.  | 242. Royal Canadian Mounted       |
| 227. Electrical Assistance.          | Police Horses.                    |
| 228. Children in the Churches.       | 243. Plastic Lenses.              |

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Note:- A Fact a Day is broadcast over the Corporation's network immediately after the Canadian Press News broadcast.

James Muir,  
Editor.

A Fact a Day about Canada  
from the  
Dominion Bureau of Statistics

No. 213. Sat. May 1, 1937 - Water for the Prairie Farm.

One of the remarkably appealing activities in the Prairie Provinces during the past two years has been the conservation of water for the rehabilitation of farms in the dried-out areas of Alberta, Saskatchewan and Manitoba.

In addition to community projects for stock-watering and domestic purposes and for irrigation where feasible, the Dominion Parliament has provided for engineering - and some financial assistance to individual farmers and stockmen for building dug-outs and small irrigation schemes. Since the water development programme was inaugurated in 1935, nearly 6,000 applications have been received from individuals, in addition to hundreds of applications for community projects. Up to the end of last February, 1,775 had been completed. These included about 140 private irrigation schemes.

The heavy demand for assistance makes it necessary to have applications in not later than the end of May, otherwise the work may have to be carried over until 1938. The engineering services are free.

What this scheme will mean to the Prairie Provinces can readily be visualized. In very many cases hope deferred will become hope fulfilled. When the day arrives that the 57,576 farms in Manitoba, 142,389 in Saskatchewan and 100,397 in Alberta, are all well watered, it will be a great day for the Prairies. These figures come from the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 214. Sun. May 2, 1937 - Preservation of Wild Flowers.

Sunday is the special friendship day when the rush of business is stilled and there is time to regard our neighbour as a human being. And out in the woods the spring flowers are blooming; those old and trusted friends which are sought and found, with never failing ecstasy, year by year. But there is a grave danger that the spoliation which has been in evidence will be the death of many species. It is on Sunday trips into the rural areas that most damage is done.

The Department of Agriculture has issued a strong appeal against the wanton abuse of wild flowers, particularly the White Trillium of Ontario. The reckless plucking of wild flowers has already resulted in the disappearance of some of the finest plants of the woods through the damage caused by removing with the blooms, all the foliage which is needed to mature the roots. The trillium is one of the wild plants which should never be gathered freely, if at all, because the blooms cannot be picked without taking all the foliage and on this foliage depends the maturing of the bulbous root for the following season's crop. Some species of wild flowers such as violets, hepaticas, and others with flower stems rising directly from the roots, may be freely picked so long as the plant body is not disturbed.



Other wild flowers, however, such as the white trillium, are best left undisturbed in their native beauty.

It is noticeable in recent years that the killing of wild birds by ruthless and unthinking boys with catapults is decreasing. The hope is that a campaign of education will also lessen the destruction of Canada's lovely wild flowers.

No. 215. Mon. May 3, 1937 - Canadian Nails.

During the Great War a leading marine engineer from the Firth of Clyde arrived in Canada looking for boat nails, those galvanized cut nails that clinch well. He said the Clyde boat builders were desperately in need of supplies, and he had been told by a Canadian mariner that exactly what he wanted could be got in this Dominion. So he took the trip himself.

When he arrived in Ottawa he had paid a visit to a comparatively small Ontario factory and so impressed was he with the product of that firm that he placed an order that made the foreman wince with apprehension lest any accident might happen to prevent him filling the huge contract.

The Scottish engineer stated emphatically at Ottawa that no better nails for his purpose could be produced anywhere and he was enthusiastic.

The incident is recalled as an illustration why the Canadian production of nails is so large. Take wire nails alone, for example. The quantity sold last year by eleven companies was over 122 million pounds at a factory value of just about four million dollars. The cut nail sales were less, of course, amounting to about one and a half million pounds. There are many other kinds of nails produced, but these figures will indicate the great extent of that business in Canada, according to the Metallurgical Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 216. Tues. May 4, 1937 - Sleepers.

There is something exciting about a railway station with its hurrying people and puffing locomotives. It speaks of adventure, a change of surroundings and maybe a few new clothes packed in a suitcase. The trip may last only an hour or it may be for a few days whereby several nights' sleep is at stake. But in the sleeper, the smiling porter at his expert bed-making is assurance enough of a comfortable journey.

However, it was not always so. Just 77 years ago the first sleeping car was built in Brantford, Ontario. It was built especially for the Prince of Wales, later King Edward VII, when he visited Canada. He and his entourage were the first to rest in bunks while travelling at night. Later in the same year, George Pullman took out his first United States patent, secured a monopoly and became a multi-millionaire.

That first Brantford coach was 46 feet long and 10 feet wide, painted blue with gold trimmings. Upon the centre panel was the royal coat of arms and immediately above it, the carved coronet of the Prince of Wales in white and gold. The

three compartments inside were tastefully decorated and well furnished with handsome carved tables, chairs and lounges. Canadian wood was used extensively in the construction of this sleeper.

To-day there are over one thousand sleeping cars in service, on Canadian Railways, travelling over 70 million miles yearly. About 900 employees, special inspectors and operators as well as porters, are kept busy on the sleeping and parlour cars to insure the comfort and safety of travellers.

The figures used are from a report issued by the Transportation Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 217. Wed. May 5, 1937 - Canada's Lumber Yard.

Let us glance briefly at Canada's lumber yard. The 1935 figures regarding the cut are now complete. It shows a total of almost three billion board feet, which is quite an increase - 400 million - over the 1934 cut. However, these huge figures mean very little to the person not directly connected with lumbering and perhaps there is a way of looking at it which may make the picture clearer.

The total cut was valued at \$48,000,000 or about \$4.50 per capita, but half of the cut was in British Columbia. The British Columbia \$24,000,000 means over \$34 per capita in that province, while the cut in Ontario at over \$8,000,000 made less than \$2.50 per capita for the second lumbering province.

Douglas fir is the tree which puts British Columbia in the pre-eminent lumbering position. The cut was 38 per cent of all species of wood, spruce coming second with 27 per cent. Hemlock and white pine were third and fourth with less than 10 per cent each. Cedar, balsam, yellow birch and Jack pine followed in that order.

We pride ourselves upon our maple and the good housewife gazes with real pleasure on her maple flooring, but the cut was only something over one per cent of the total.

Amongst the less common yet valuable woods were cherry, chestnut, red alder, butternut, hickory, walnut, tulip and willow.

This information comes from the Forestry Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 218. Thurs. May 6, 1937 - Inland Fisheries.

The Great Lakes and tributary waters of the St. Lawrence are a second great division of the Canadian fisheries. The value of the inland fisheries of Quebec lies chiefly in the output of the eel, doré (pickerel) and sturgeon fisheries and is valued at \$618,000. In Ontario, whitefish, trout, pickerel and lake herring are the most important commercial fishes, though pike, sturgeon and coarse fish yield a fair return. Ontario's production was valued at \$2,852,000.



The season on the Great Lakes lasts from six to eight months and, though fishing through the ice is followed by many, a large number depend on miscellaneous employment between the seasons. Moving westward, Lake Winnipeg, Lake Winnipegosis, Lake Manitoba and the smaller lakes to the north and east furnish most of the fish products of Manitoba, amounting to \$1,258,000. Whitefish and pickerel are the chief products, but pike, tullibee, goldeye and many other varieties are found. In Saskatchewan and Alberta commercial fishing is confined to the regions north of the Saskatchewan river, where whitefish in large quantities are taken. Saskatchewan's production had a market value of \$252,000 and Alberta's \$225,000.

The difficulties in connection with transportation have not yet been surmounted; some of the greatest lakes of the continent — Reindeer, Great Slave, Great Bear — and hundreds of smaller bodies of water are still beyond reach from a marketing point of view. The lakes of the west, however, repeating the part which the St. Lawrence played in the days of the French regime, and the cod banks in the history of New England, have assisted greatly in the settlement of the country by providing a much needed food supply for early arrivals.

This information comes from the Fisheries Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 219. Fri. May 7, 1937 - The Canadian Horse Coming Back.

It will be cheering news to lovers of horses that man's best friend is coming back. In the ten years from 1925 to 1935 the horse population fell nearly half a million, and in the United States about eleven million.

It is now discovered that there is a shortage, especially of draught horses. Great Britain has a shortage and has become an importer. Strange to say, nearly 300 Canadian Clydesdales went back to the land of their forefathers last year and brought high prices on Scottish markets, ranging up to \$440. each.

The motor car seems to have disposed of the carriage horse almost entirely. Sleighs are seldom seen in the cities in winter. No more will there be a story of the governor-general's lady being thrown out of her sleigh on the way from the railway station to Rideau Hall as once happened to the Princess Louise.

It is on the farm mainly that the horse is coming back. The stylish Clydesdale is still the favourite work horse in Canada, although the more docile Percherons and Belgians are increasingly popular. The Percheron is the chief challenger to the supremacy of the Clyde but the Belgian, the quietest tempered of the three breeds, is becoming a substantial factor.

One interesting comparative statement is made that it requires more than two bushels of oats to purchase enough fuel to operate a three-plough tractor for one hour.

Last year 410 horses were imported for the improvement of stock and half of them came from Belgium. There were 16,000 horses exported to the United States compared with 5,000 in 1935, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 220. Sat. May 8, 1937 - Canada's Trade with Haiti.

A trade agreement between Canada and Haiti was signed this week, and many people would note in the newspaper announcements with interest that it was signed at Port-au-Prince, the capital of that country, by the British minister there on behalf of the Dominion. Canada has no consular system, but in cases of this kind, the services of the United Kingdom's consulates are requisitioned to perform the necessary duties.

The Republic of Haiti is the western or French portion of the Island of San Domingo which, next to Cuba, is the largest of the West Indian islands. It was discovered by Columbus on his first voyage. A million aboriginal inhabitants were later exterminated by the Spaniards and the island populated with negroes from Africa,, the beginning of the revolting slave traffic.

Haiti is said to be the most fertile spot in the West Indies. It is about half the size of Nova Scotia. It was ceded to France in 1697 and its independence was proclaimed in 1804. Since 1915 it has been a protectorate of the United States, the treaty expiring this year.

The history of the country is one of struggle by the people to organize themselves into a civilized society. To-day education is free and compulsory.

The most important commodity we get from Haiti is sisal grass. Last year the value was \$93,000. We also get grapefruit, oranges and occasionally other tropical fruits. Canadian canned fish is highly favoured by the Haitians, chiefly alewives, smoked herring and cod, but we send a fairly large variety of other things, such as wheat flour, auto tires, lumber, textiles, iron, chemicals and potatoes, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

Note: See broadcast No. 238 in 1935 for further information regarding Haiti.

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No. 221. Sun. May 9, 1937 - Mothers' Day .

Even if the wholesome idea which Miss Anna Jarvis, of Philadelphia, gave to the world in 1910, when she began the movement to devote a day of reverence to Mothers and Motherhood, has been largely commercialized, it is nevertheless true that Mothers' Day has inspired thoughts that otherwise might not have been invoked. Yet, indeed, commercialization in itself has not been without good.

All through time, good people have held sacred the name of "mother" and have enshrined her in their hearts. Motherhood is the highest estate of woman. And while good people in all ages have revered her as such in whatever station of life her lot may have been cast, and while, no doubt, all generations have felt that they have supported and assisted her in more ways than their predecessors, we like to think that we in our day and generation have done still better. Mothers' Day has played a part in the advance.

We have tried to relieve mothers and motherhood of much of the drudgery and hardship, and industry, whose leaders after all are the sons of mothers, has been a foremost worker. Science and research, alongside industrial enterprise, with its



modern gadgets, have eliminated from the kitchen a great deal of the household labour. Political reformers have given us the Mothers' Allowance Act, which aids over 16,000 families, and the Old Age Pension. These have made the journey easier and removed many anxieties.

But higher still than the material things that the thoughts of mother have inspired us to provide is the awakening to the knowledge of the sacrifices mothers have made and are making. The word "mother" appears no fewer than 293 times in the Book of books.

Only six years ago there were over two million school girls between the ages of 10 and 24, the prospective mothers of future Canadians. What will Mothers' Day mean to the children of the next generation?

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No. 222. Mon. May 10, 1937 - The Emerald.

When the emerald is mentioned, one's thoughts naturally turn to Ireland, where the grass is more beautiful than anywhere else on earth. As the ship nears Ireland, say Dublin, bearing a visitor making his first trip to the country and the early morning haze lifts, revealing the beauty of the land, the great enchantment is the rich green colour of the verdured hills and slopes. No man who has never been there has ever seen its like. That is why poets sing lovingly of the Emerald Isle.

The emerald is the birthstone of May. It is the emblem of Hope and Faith. The ancients dedicated it to the goddess Venus, and it seems always to have been the gem of lovely women. The Egyptian mines were owned by the famous Queen Cleopatra, who gave emeralds, engraved with her portrait, to her ambassadors. Napoleon's only gifts in jewellery to Josephine were emeralds and pearls. Catherine the Great had a vast collection. Caesar was a collector. Nero wore one as a monocle when observing the games. He found that the green colour relieved the strain.

The Book of Revelations tells us that the fourth foundation stone of the wall of the Holy City was an emerald. The second row of gems on Aaron's breastplate was partly emeralds.

The finest emeralds are said to come from Colombia. There are green jades, green garnets, and beryls, but they are not emeralds. Canada's importations are not exactly classified but are probably worth, at the ports of entry, about \$50,000 a year, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 223. Tues. May 11, 1937 - Rabbits.

During the last few months the importation of frozen rabbits from Australia has begun again, after being in abeyance for a number of years. These rabbits, however, are not imported for human food but for fox-feeding purposes.

Advices from Australia say that the rabbit pest in that country is now well under control, particularly in Victoria and New South Wales, although not in Queensland. Old timers in Australia tell us that at one time, when the rabbit pest was at its worst, the ground seemed to move with them. They ate every leaf of vegetation

just like a plague of locusts. They came on to the roads in droves. That English rabbit was introduced into Australia by well-meaning but thoughtless people.

Canadians who visit Europe, especially the British Isles, are amazed to see the rows and rows of rabbits hanging up in the meat shops ready for sale and to find that rabbit meat is a favourite dish. Indeed, hare soup is a most highly regarded delicacy.

It is not so in this country and the chief reason appears to be that in the late fall and early winter, when the meat should be at its best, the rabbits are feeding on the bark of trees and shrubs, especially cedar, with the result that the meat has an unpleasant taste. Before the snow covers the ground is the time to get rabbit.

Probably the fact that, because of the increase in the raising of rabbits for fur, which sometimes runs up to nearly half a million skins treated in a year, we have plenty of the meat at home for the fox ranches, according to the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 224. Wed. May 12, 1937 - Some Statistics Relating to the Coronation.

There are 163 persons in Canada to-day, according to the last Census, who are aged one hundred years and over. They had begun their long lives when the young Queen Victoria ascended the Throne, just one century ago this Coronation year.

The population of Canada one hundred years ago was about one and a quarter million. There were 200,000 in Nova Scotia, 600,000 in Lower Canada and 397,000 in Upper Canada, so that a million and a quarter seems to be a fairly conservative estimate.

There are 3,666,000 persons in Canada to-day who were alive at the accession of Edward VII in 1901. In that year the population of the Dominion had risen to 5,371,000.

There are 4,355,000 persons living in Canada to-day who were alive when George V became king in 1911, 26 years ago, and the population in that census year was 7,207,000.

To-day the subjects of King George VI in this Dominion number over 11 million persons.

It is worthwhile to pause for a moment and contrast the story of the Coronation to-day as conveyed to over one million radios in this Dominion by the Canadian Broadcasting Corporation, with what happened a century ago. The news that a young girl had come to the Throne of Great Britain and Ireland was brought by sailing ships that took weeks to cross the Atlantic. The news regarding the accession of Edward VII came to newspapers by cable and the public read about it hours after the incident occurred. To-day the news was brought instantly to the listening ear.

The figures in the foregoing come from the Dominion Bureau of Statistics, Department of Trade and Commerce.



No. 225. Thurs. May 13, 1937 .. Food Exports in Relation to Domestic Need.

When we hear of an unusually large export of a certain food commodity the thought obtrudes that surely a scarcity is created at home. Strange to say, that is not so, talking generally, and there is a good reason for that.

Our export and import trade, while it looks very large, is really a comparatively small proportion of Canada's total trade. The internal trade of the Dominion is far in excess of the external trade.

There are very few food commodities whose export exceeds the domestic need. The outstanding one is wheat. Last crop year was abnormal and we were able to sell abroad much wheat from stocks of previous years. When adjustments are made for the change in stocks, it is found that the export was 57 per cent of the production. Cheese and apples are two others.

The export of all field crops was only 33 per cent of the production, meats and meat animals 10 per cent, dairy products six per cent. Of course we import some foods in these classes, and when all three operations are combined, we find that the Canadian consumption of field crops was 78 per cent of production, of meats 91 per cent, of dairy products 94 and of poultry 98. Apparently there is room for expansion in poultry as we export a very small proportion of the crop.

Skilful traders keep the balance of supply fairly even. Shortages are met by imports, but the outstanding fact is that our exports do not seriously cut into the supply for domestic use.

No. 226. Fri. May 14, 1937 .. Macaroni and Kindred Products.

The letters of the alphabet lying in a bowl of soup, the white cylinders in that popular dish, macaroni and cheese, the rope like spaghetti and its slim twin vermicelli, are all made from the same flour paste. Different arrangements of holes in the bottom of a cylinder, somewhat on the same lines as a potato ricer but very much larger, make the various shapes. The paste comes through in tubes or strips, is cut into lengths and hung over rods to dry.

At one time Italy was the only country producing macaroni. Owing to remarkable enterprise in recent years by the manufacturers of these flour products in Canada, leadership in the British market has been captured. Larger and growing quantities are being sent to other countries. The reason for this is probably that the hard wheat which is best for this purpose, is grown in Canada. Naturally macaroni, spaghetti, vermicelli and noodles play a great part in Canadian dishes.

The manufacturers are now turning out over 35 million pounds yearly to satisfy the demand at home and to export, as they did last year, close to seven million pounds. To the United Kingdom alone 5,400,000 pounds were sent. The imports are comparatively small, coming mainly from the United States.

The figures are from the Dominion Bureau of Statistics, Department of Trade and Commerce.

Note: For further information regarding macaroni see No. 48 of Series I in 1934.

No. 227. Sat. May 15, 1937 - Electrical Assistance.

There are over two million households in Canada where women are busy preparing meals, washing and ironing, and doing the numberless tasks of homemaking. About half of these households have from six to nine rooms to keep clean, and about 700,000 of them have four or five rooms. The six thousand which have over 15 rooms are likely cared for by several people and on the other hand one person would certainly be able to care for the one-room household of which there are 84,000. The average number of persons per household is four or five.

The labour involved in keeping order in many homes is great but fortunately it is becoming less irksome. Mondays are no longer a day when the heated kitchen belches forth clouds of steam laden with the familiar soapy smell. The electric washing machine quickly does its work with very little attention. More and more women are being made happier every year by one of these new appliances. In 1936 there were 88,000 electrically operated machines, 4,000 gasoline operated and 13,000 hand machines produced in Canada. And you can picture the radiant face of the housewife who owns one of the 9,000 electric ironers produced last year.

Now that the curtains, linens and clothing have been washed and ironed, our attention is turned to the sweeping and dusting. Last year 47,000 electric vacuum cleaners were made and 12,000 sets of various attachments for them. Mothers and wives, sisters and sweethearts don't need to be reminded to clean the corners and under the rugs any longer. A slight push and a whirr whisks away the offending dust.

These figures are taken from reports by the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 228. Sun. May 16, 1937 - Children in the Churches.

One of the features of the Coronation Day celebration at Ottawa on Wednesday was the large number of young children present, and from newspaper accounts of the celebrations elsewhere, it seems to have been a feature all over the Dominion.

It is undoubted that many grown-ups would have preferred to sit by their radios and listen to every little bit of that wonderful programme that came over the air. However, the education of children, the training of their young minds, teaching them by visual observation, these things cannot be overlooked if the youngsters are to grow up with a keener knowledge of passing events. So parents forewent their other inclinations and took their children to see the spectacle.

Does not that explain to some extent at least why some people are to be found regularly at church? Is it not more than a suspicion in our minds that, were it not for the children and the desire to teach them good habits, not so many grown-ups would be so regularly in their pews on Sunday? The children in so many ways are the rock upon which we build.

Many clergymen make a point of asking that the children be brought to church and prepare simple little sermons specially for them.

The field for the churches amongst the children is very great. Out of our total population of over 11 million persons, there are about 2½ million between



the ages of four and fifteen, according to the last census of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 229. Mon. May 17, 1937 - Canada's Trade Through the Panama Canal.

The Panama Canal is an important factor not only in world trade but in the domestic commerce of both the United States and Canada. Many commodities are shipped from Canadian Atlantic ports to Pacific ports by that route, and from west to east as well.

That great canal was opened on August 15, 1914, just after the declaration of war in Europe. For the first four years, transits of British vessels exceeded those of any other country, but United States vessels have led in transits ever since. This has been due largely to the transportation of Californian mineral oil. During the last fiscal year over 2,000 United States cargo vessels passed through the locks and over 1,300 British. Norwegian vessels came next with 556.

The movement of Canadian cargo by vessel from western ports through the Canal to all countries was 2,706,000 tons and from western ports 265,000. The great bulk of western Canada's trade was to the British Isles, amounting to almost two million tons via Panama.

The most interesting thing is the Canadian cargo movement between eastern and western ports, which traffic presumably would have been by rail were there no Panama Canal. From east to west it was 63,000 tons and from west to east 56,000, according to reports received by the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 230. Tues. May 18, 1937 - Fresh Fruits from Abroad.

From now on there will be friendly competition among those who grow their own fruit and vegetables to see who will have the first strawberries or the first green peas. One of the first products of our own particular garden patch is the trusty rhubarb which in many homes will take the place of grapefruit or oranges for breakfast.

However, the grapefruit has been a popular food during the winter months as is shown by its increased use. Last year we imported 43 million pounds, an increase of five million over the year before. The United States supplied most of the grapefruit. Honduras, Jamaica and Palestine sent some also. Imports from Palestine increased from 12,000 to 1,188,000 pounds in one year. By the way, if the grapefruit on your breakfast table is shaped like a pear or is remarkably large, you should call it a shaddock, according to the dictionary.

The glowing cousin of the grapefruit, the orange, is the most popular imported fresh fruit. Last year we got 211 million pounds which was an increase of over 15 million. Oranges were brought from Jamaica, Japan, Australia, South Africa, Spain and Palestine. The United States sells us the greatest quantity of oranges.

We used five million pounds more pears last year, bringing the imports of this fruit up to 23 million. Grapes reached 26 million pounds. Probably the notable

increase in grapes was due to the increased export to Canada from Argentina.

We are consuming more bananas, the main supplies coming from Jamaica, but other West Indian islands are in that trade also, and we get some from as far away as the Fiji Islands, according to the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 231. Wed. May 19, 1937 - National Hospital Day and Florence Nightingale.

The need of having one day in the year set apart as National Hospital Day in Canada has met with a widespread and sympathetic support on the part of the general public, for it is only by a nation-wide campaign of public education that every man, woman and child may acquire a better understanding of the great work performed by hospitals and their unique service to humanity. The hospital is a light piercing through the darkness ... a light which dispels the gloom of suffering humanity and restores the spiritual, mental and physical health of the individual. In this great work the nursing profession plays a very noble part with the medical profession in the alleviation of suffering and by their devotion and self-sacrifice in their trying duties have put all womankind on a higher plane.

The training schools for nurses to qualify them for their arduous duties owe their origin to Florence Nightingale, born on May 13, 1820. Longfellow's poem "Santa Filomena" made Florence Nightingale famous as "The Lady of the Lamp". A letter written by a soldier in the Crimean War, 1855, says of her: "What a comfort it is to see her pass! She would speak to one and nod and smile to many more. She could not do it to all, for we lay there in hundreds, but we could kiss her shadow as it fell and lay our heads on the pillow again content. When all the medical officers retired for the night and darkness settled down upon these miles of prostrate sick, she made her solitary rounds with a little lamp in her hands. As her slender form glides through the corridor every poor fellow's face softens with gratitude at the sight of her."

Aside from the establishment of schools of nursing, Florence Nightingale's chief work was for the health and betterment of suffering humanity. She was anxious that the lessons taught by the Crimean War should aid posterity in providing hospital facilities for the sick and in developing among the nursing profession an exalted idea of their work.

The Florence Nightingale pledge taken by nurses on their graduation day contains the noblest sentiments of service and loyalty to duty: "I do solemnly pledge myself before God to pass my life in purity and to practice my profession faithfully. I will abstain from whatever is deleterious and mischievous and will not take or knowingly administer any harmful drug. I will do all in my power to elevate the standard of my profession, and will hold in confidence all personal matters committed to my keeping. With loyalty will I endeavour to aid the physician in his work and devote myself to the welfare of those committed to my care."

The number of nurses in the various hospitals in Canada in 1936 totalled 19,075, according to the Dominion Bureau of Statistics.



No. 232. Thurs. May 20, 1937 - Eels.

The appearance of an eel is repellent to many and its flesh too oily for the majority, yet there is a good market for it. "As slippery as an eel" needs no explanation to the person who is confronted with preparing one for the dinner table. We are advised that if a piece of paper isn't sufficient to hold the creature from slithering away while skinning it, try nailing the head to the wall.

Eels, although they resemble snakes, are of the fish family and are to be found in fresh water as well as in the sea. In life history, they remind us of the salmon. In the autumn they migrate down the river to the sea to spawn, which is just the opposite of what the salmon does. Those living in ponds will often go overland for considerable distances during the night to reach a river. The eggs are laid in deep water and in spring little transparent fish about three inches long are hatched. They are scaleless with tiny heads and during the following year apparently do not eat but become slimmer and round in shape. They are called elvers and make their way up the rivers and streams where they remain for several years before returning to the sea to spawn.

Eels are largely used as food by most European nations. We are told that during the food shortage caused by the Great War, the British Government did all in its power to stimulate fresh-water fish culture, especially that of eels. Previous to 1911, Germany had an elver-catching depot on the Severn from which millions of young eels were exported to Germany for cultivation. Until the past two years, most of the Canadian export went to Germany. New markets are being found in the eastern section of the United States, mainly New York.

The majority of eels sold in the Canadian market were caught in the inland waters of Quebec. The market value in 1935 was around \$162,000 while the exports amounted to \$54,000, according to the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 233. Fri. May 21, 1937 - Feathers and Down.

If you are thinking of visiting the Orient this year, try using one of the national pillows of China when you retire to rest. Even if it is fashioned from teak, mahogany or other valuable wood and embellished with intricate carving, and is costly, it is nevertheless still a hard wooden block. It may be shaped to fit the neck of the sleeper but it can never be soft.

In this country we like a soft pillow, and one of the most desirable fillings is the eider-down from the large sea-duck which inhabits the northern regions of Europe and Greenland. The birds pluck the down from their breasts to line their nests and this is the source of eider-down used in commerce. So valuable is the down, because of its lightness and warmth, that the ducks have been protected and they have now become almost domestic.

Next in line of choice come goose feathers. They are naturally curly and elastic, characteristics retained for many years despite hard usage. The curl permits air to circulate through the pillow, filling hollow spaces and increasing its buoyancy. Duck feathers have a somewhat similar structure but do not possess the same elasticity and length of life, while chicken feathers are flat with no spring in

them.

Feathers used in the factories for pillows, cushions, mattresses and comforters are thoroughly cleansed with modern equipment that removes all foreign matter that would otherwise reduce their natural longevity. After being scientifically dried and sterilized, the feathers pass into a rejuvenator which restores their natural curl and elasticity. Canadian manufactures use over a million pounds of feathers and down in a year valued at about \$141,000, according to the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 234. Sat. May 22, 1937 - Vinegar.

Who ever heard of pickling without vinegar? And yet there is something of a paradox about it. Vinegar is used to act as a preservative but it is the product of a form of decay through bacteria, known as fermentation.

The word itself comes from two Latin words "vinum" and "acer" and means a sharp wine. Alcohol liquors such as cider or light wines are acted upon by bacteria which change them into the sour liquid known as vinegar. This can be done in two different processes. The quick method is to allow the alcoholic liquor to trickle through huge vats containing shavings which have been thoroughly cleaned and inoculated with acetic bacteria. These bacteria are commonly called "mother of vinegar". Air is admitted freely to complete the process. The slow method is to leave the liquor exposed to the air. It takes about six months to complete this process. The vinegar formed in both ways is made pure by distilling it.

The various kinds of vinegar sold commercially are determined by the type of liquor used, for example malt vinegar from cider and white vinegar from wine. Sometimes in the home, through accident, what was originally intended to be grape or dandelion wine turns into vinegar.

The vinegar made in Canada is usually a product of factories engaged in pickling or preserving fruit or vegetables. The output amounted to four and a half million gallons in 1935. Some of this is used in the factory but the quantity sold was valued at over one million dollars. The imports of 138,000 gallons last year came chiefly from the United States and about 28,000 gallons were exported, according to the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 235. Sun. May 23, 1937 - Church Vestments.

The scoffer is occasionally heard to say that church is a place for women to display their new clothes. There may be some truth in that, but back of it there is something deep and pure. The "Sunday best" may have given scope to vanity but it also set apart the day and the place from all the rest and governed our actions accordingly. To most of us, childhood memories become indelible impressions, affecting later years and surely the child sitting primly upright in church, slightly uncomfortable perhaps in well-starched clothes, feels at least more decorous and inspired.

So important a part has dress played in our religious life that many of our churches have special rules and regulations as to their style and use. The clerical



robes of ministers and priests are symbolic of the duty they perform and anyone wearing these special robes is given due respect. "Respect the cloth" is an old saying.

Choir gowns and mortar boards give uniformity to the group of people who are usually placed in a conspicuous position and thus prevent thoughts from wandering to various head-dresses or coiffeurs. Special ceremonies such as baptisms and communions call for a particular style of dress with the aim of impressing upon the congregation the seriousness of the event.

It is very difficult to know just how much money is spent in the production of church vestments. Many churches have their robes made within their own institutions and women's organizations and the beautiful embroidery and fine work done upon these garments make them very valuable. However, some idea of the Canadian production can be gained from the fact that outside of church organizations, church vestments were manufactured to the value of \$15,000 in 1935. There were \$27,000 worth imported, according to the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 236. Mon. May 24, 1937 - Victoria Day.

This is Victoria Day and to-day the British Empire celebrated as a holiday the birthday of one of the great and good rulers of world history. Her name stands out as a symbol of all that is best in sovereignty, in culture and in domestic felicity. It was her high ideals and her genius for choosing great and wise councillors, that swept away the dangers that threatened the kingdom from without and within when she ascended the throne and made secure the Empire's place in the world. She taught peoples by her example how the greatest happiness was to be obtained. The unerring lesson lay in beginning with a well ordered domestic life. We see it to-day. It is not a mere guess to say that the affection and loyalty the new king, her great-grandson, and the new queen, have inspired is due very largely to the knowledge that they are a domesticated and home loving couple.

It is exactly one hundred years ago since Victoria came to the throne. She was a young girl of eighteen, descendant of a long line that stretched away into the dim and little recorded past. Her immediate ancestors in kingship had been far from illustrious, and many sections of the people were ready for revolt, almost as ready as the New England colonists when they flung themselves into independence.

Canada herself was in the throes in that very year of 1837. Men were springing to arms to fight for freedom and democracy. They won for us what we have to-day.

Under Victoria's beneficent rule of sixty-four years there were changes and reforms that destroyed anarchy and promoted peace, happiness and prosperity.

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No. 237. Tues. May 25, 1937 - Lower Lighting Costs.

There has been a very noticeable decrease in recent years in the cost of electricity for domestic use. Taking the cost all over the Dominion as a whole the reduction in the last eight years has been ten per cent. There has been a lowering of the cost in every province, but in some provinces the drop has been much faster

than in others. In Prince Edward Island the charges in 1936 were 33 per cent less than in 1928, while in Ontario they were four per cent less.

Nova Scotia did pretty well, bringing down the cost 25 per cent, New Brunswick's charges being 6 per cent less. There has been a great deal of publicity given to costs of electricity for domestic use in the Province of Quebec, but the fact is that the average cost has been reduced almost 20 per cent in these eight years.

Coming to the Prairies, Manitoba's costs have dropped about  $2\frac{1}{2}$  per cent, Saskatchewan has made a 24 per cent cut and Alberta over 20 per cent. In British Columbia the average rate is down about  $1\frac{3}{4}$  per cent.

It should be noted that these figures only reflect the trends in each province and not the relative costs as between the provinces. Although Prince Edward Island has made a great reduction in these eight years and Manitoba a small one, the average cost per kilowatt hour for all electricity used in residence lighting, cooking, water heating, etc. was 7.82 cents in the former in 1935 and only 1.01 cents in Manitoba.

The average cost of electricity for domestic use in Canada in 1936 was the lowest in Manitoba, followed in order by Ontario, British Columbia, Quebec, New Brunswick, Saskatchewan, Nova Scotia, Alberta and Prince Edward Island, always remembering that rates vary considerably in many districts in most of the provinces, according to the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 238. Wed. May 26, 1937 - The Underpaid Rural Teacher.

This is the time of year that teachers are deciding whether they will stay in their present school for another year, and that school boards are deciding whether to keep them or make a change. Most of the changing will be done in the rural schools, for the majority of teachers in "the little red schoolhouse" move from one school to another every year, or every second year, while the city teacher remains in the same position for seven to ten years.

There is plenty of reason why the city teacher should be more contented with her lot. In the provinces where the country teachers' salaries are best they average only about half of what the city teacher is paid; in several provinces the rural salary is only one-third of the city salary. There must be very few people indeed, who would say that the country teacher does only one-third as much as her co-worker in town; and by the same token, very few who would not say that the former is on the whole underpaid.

As in the case of the farm families they serve, the depression has hit the country teachers with exceptional severity. In some provinces their salaries are less than half of what they were back in 1929. In most of the provinces the average annual salary in one-room schools is four hundred and some dollars. Thousands have been teaching for \$30 or less a month -- a dollar a day, out of which they must pay their board. This is a figure which we can hardly expect to attract to, or retain in, the teaching profession the more able of our young people. Cities as well as farm communities must eventually suffer for their teachers as a rule come to them by way of the rural school.



The foregoing is based on a report issued this week by the Education Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 239. Thurs. May 27, 1937 - From Anxiety to Optimism.

The past winter was unusual with less cold weather, less snow and much more rain than we are accustomed to have. Such conditions are frequently hard on our wintering plants, particularly those of herbaceous character and there has been considerable apprehension amongst gardeners with regard to the safety of their plants. The coming of spring has revealed a high mortality among perennial flowering plants and bulbs while numerous bare patches on lawns bespeak the damage done by water and ice which replaced the customary covering of snow.

Especially was it an anxious time for those who depend, directly and indirectly, upon fruit trees and bushes for their livelihood. What was the unusual winter going to do to them was the question.

A survey made by the Dominion Bureau of Statistics answers the question thoroughly. It makes plain that weather conditions during the past winter were favourable for fruit trees and bushes and, in all parts of the country, they have come through without injury. In British Columbia the winter was cold but the heavy snowfall prevented serious damage. The mild, open winter in the Eastern provinces was accompanied by some injury to strawberries which were blanketed by ice but on the whole the damage was slight.

Tree and small fruits in Ontario have made a remarkable recovery from the setback resulting from last summer's drought and the outlook is encouraging for all crops. In Quebec, New Brunswick and Nova Scotia, winter losses were negligible. So the anxiety which was upon us for our fruit has been replaced by considerable optimism.

No. 240. Fri. May 28, 1937 - Blossom Time.

To-night, the "Land of Evangeline" is the setting for the opening ceremonies of Nova Scotia's annual Apple Blossom Festival. From near and far, people are gathering to view that beautiful sight of a valley blanketed with scented, snowflake blossoms. Last year, this fairyland produced 1,500,000 barrels of apples.

The great bulk of Nova Scotia's apple crop is exported each season to the British market and the average annual shipments run well over a million barrels. The high point was reached in the 1933-34 season when shipments totalled 2,257,000 barrels. Five varieties account for more than half the total exports of Nova Scotia apples, while ten other varieties bring the total between 80 and 90 per cent. Nova Scotia's "big five" are Baldwin, Stark, Ben Davis, Gravenstein and King. With the one exception of Gravenstein which is an early fall variety, these are all winter apples.

Other important apples grown in Nova Scotia are Ribston, Golden Russet, Wagener, Gano, Northern Spy and Cox Orange. The latter is the favourite dessert apple grown in England and most of the Nova Scotia crop finds a ready market in that country. The Canadian variety, McIntosh, which is now so widely planted

throughout North America, is relatively unimportant in Nova Scotia although it is now being planted more freely there.

While many fruit growers in Nova Scotia secure their trees from local nurseries, probably the majority of orchards have been grown from trees produced outside the province. Recently however, there has been a marked increase in the number of orchardists who are planting small nurseries for the purpose of providing their own trees. There is also a noticeable tendency to reduce the number of varieties grown, with a greater concentration on the more important commercial sorts. New varieties such as Delicious, McIntosh and Cortland are being set out along with red colored sports of the older Spy, Gravenstein and Rome Beauty.

Canada's total production of apples in 1936 was nearly four and a half million barrels, according to the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 241. Sat. May 29, 1937 - Canada's Trade with Belgium.

There is much in common between Belgium and Canada. Belgium has the same constitutional system as our own. It is a democracy. It is a young country, its constitution and independence proclaimed as recently as 1830.

Like our own Dominion, Belgium has two main languages, Flemish and French. While the majority speak Flemish, French has gained the ascendancy in educated society and in the offices of the Government. There is no navy but a good merchant marine.

Belgium is the smallest country in Europe, its area of 11,750 square miles being less than half that of Nova Scotia, but it has the densest population, over eight million. There are 700 persons to the square mile. Nova Scotia has only 24 persons to the square mile.

As a people they have shown themselves possessed of great courage, patience and fortitude. A great achievement has been the reclamation of waste sand lands which have been transformed into flourishing farms.

It is wonderful to contemplate that this small country is the seventh trading nation of the world, coming close behind Canada and Japan, which are fifth and sixth. The country is very highly industrialized and efficient.

Our chief imports from Belgium are peas, cotton fabrics, woollen yarn, hatters' fur, coal, unset diamonds, rolling mill products, iron plates and sheets, glass, but the greatest of these is glass. Our main export to Belgium is wheat which accounted for \$19,000,000 out of a total of nearly \$23,000,000. Zinc, asbestos and lead are the largest of the other commodities, according to the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 242. Sun. May 30, 1937 - Royal Canadian Mounted Police.

It was with a good deal of pride we read of the fine impression the Royal Canadian Mounted Police escort made when it accompanied the Prime Minister in the great Coronation procession in London. Those beautiful horses, wonderfully trained, commanded admiration. There were 37 in the escort.



So perfect are these horses, so alike are they, so almost human in their understanding, that there is a very wide impression that the Force breeds its own horses. This is not so. The remounts are purchased from farmers and ranchers throughout Canada. The choice demands a most discerning eye and accurate judgment of horse flesh. The remounts are usually purchased in the district where they are required to serve as experience shows that they will do better where they have been raised, for the reason that they have been climatized to it.

Prior to the Force's duties being extended into the eastern provinces, most of the remounts were purchased in the West. This was essential in those days as western horses, brought up on the range, were accustomed to the climatic conditions there and were instinctively aware of such ground obstacles as gopher and badger holes, which constituted a grave menace to eastern horses.

The horses must be perfectly sound, have good feet, short, strong backs, plenty of bone and be between the ages of four and six years. For saddle purposes they should be from 15-2 to 16-1 hands and of any sound colour except greys or buckskins, according to information given the Dominion Bureau of Statistics, by the Royal Canadian Mounted Police.

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No. 243. Mon. May 31, 1937 - Plastic Lenses.

A new and startling development in plastics has recently been developed in England. Two young Englishmen have discovered a way to produce unbreakable lenses for spectacles, cameras, binoculars, telescopes and other scientific instruments on a mass production scale. The material used is a plastic which is somewhat similar to celluloid though of a resinous base.

When it is realized that, up to now, each individual optical lens has required long and expensive grinding and polishing by highly skilled technicians, some idea will be gained of what this mass production may mean in cutting costs.

The polished lenses are produced by a moulding process. It will still need skilled labour, of course, to make the basic mould for any given lens specification but once this is done, enormous quantities of lenses can be produced.

Not only are they produced at a fraction of the cost of regular glass lenses, but they have other desirable characteristics as well. It is stated that they weigh only half as much as glass, are unbreakable, are as optically efficient as glass and are 30 per cent more transparent. Vest pocket size pictures taken through plastic camera lenses have been enlarged to three-by-four feet size, it is said, without losing any of the clarity of the original. Possibly the greatest serviceability of these lenses, however, will be in their use for spectacles.

While there are firms in Canada manufacturing lenses on quite a large scale, the importations are also large and are valued at considerably over a quarter of a million dollars, according to the Dominion Bureau of Statistics, Department of Trade and Commerce.





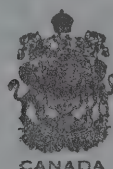


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DEPARTMENT OF  
TRADE AND COMMERCE



**A FACT A DAY ABOUT CANADA**

FROM THE

**DOMINION BUREAU OF STATISTICS**

AS SUPPLIED TO THE

**CANADIAN BROADCASTING CORPORATION**

DURING JUNE 1937.

**THIRD SERIES**



Published by Authority of the HON. W. D. EULER, M.P.,  
Minister of Trade and Commerce.

Price 25 cents per annum



### Contents

- |  |                                  |
|--|----------------------------------|
| 244. The Unknown Isles. (Queen Charlottes) | 259. Cinchona Bark.              |
| 245. Yeast.                                | 260. Dogs.                       |
| 246. Cost of the Mentally Sick.            | 261. Cleaner Milk Bottles.       |
| 247. Typewriters.                          | 262. Carrageen.                  |
| 248. Mustard.                              | 263. Leaf Collections.           |
| 249. An Unique Government Service.         | 264. The Ross's Goose.           |
| 250. Cars and Tailers.                     | 265. Mining Under the Sea.       |
| 251. Vanilla Beans.                        | 266. Honorary Degrees.           |
| 252. The Gem of the Ocean.                 | 267. Saint John the Baptist Day. |
| 253. Figs.                                 | 268. Estimating the Population.  |
| 254. The Cocoa Tree.                       | 269. Wedding Rings.              |
| 255. Printing.                             | 270. Flowerpot Island.           |
| 256. A Brunette Canada Goose.              | 271. New Fuel Mixture.           |
| 257. Autos Generate Their Own Gas.         | 272. Industrial Production.      |
| 258. Cassava.                              | 273. Molasses.                   |

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Note:- A Fact a Day is broadcast over the Corporation's network immediately after the Canadian Press News broadcast.

James Muir,  
Editor.

A Fact a Day about Canada

from the

Dominion Bureau of Statistics

No. 244. Tues. June 1, 1937 -- The Unknown Isles.

Off the mainland of British Columbia is a group of island about which the general public knows little. They are called the Queen Charlottes. Moresby, the second largest, is almost wholly mountainous and contains some of the most inspiring scenery on the West Coast. Graham, the largest island, is partly spruce and hemlock forest, partly muskeg and partly mountainous but is noted chiefly for the length, the breadth and the beauty of its sea-beaches. Blue, white-crested combers break on the shining sands to dissolve in curdled foam and flying spindrift; farther up the shelving beach whiter sands sparkle for fifty yards or more to high-water mark where thousands of drift logs, smooth and silvered by the weather, lie in confusion. Behind the drift logs are sand dunes and behind the sand dunes forest and muskeg where bear and deer have worn deep trails. On the muskeg, White-cheeked Geese and Sandhill Cranes build their nests and raise their young.

Strange creatures are cast on the sands; abalones, starfish, sand-dollars, corals, sponges; and a receding tide lays bare polished agates of many beautiful shades.

The beaches are a resting and feeding place for countless numbers of birds. Little wading birds of the snipe family on their journeys to and from their Arctic nesting ground swarm over the sands and follow the receding waves and tide in search for food.

Bald eagles with shining heads, sable ravens and snowy-breasted gulls patrol the shores from which they seldom are absent. Cut-throat trout and Coho salmon ascend the many rivers and are taken with fly and trolling spoon.

The census shows seventeen hundred people on these islands. Half of them are Indians living on reserves and many of the rest are Scandinavians.

This information comes to the Dominion Bureau of Statistics, from the Lands, Parks and Forest Branch of the Department of Mines and Resources.

No. 245. Wed. June 2, 1937 -- Yeast.

If we could only see with the naked eye all the minute organisms floating about in the air, we would marvel at the living force wrapped up in forms so very small, some doing good and others, great mischief. For instance, yeast, which makes bread and other things rise, is composed of tiny one-celled plants which are present in the air.

These plants belong to a class of fungi which, when growing in saccharine or



sugar solutions, changes them into alcohol and carbon dioxide. These minute vegetable cells collect together, forming a yellowish, frothy mass with a peculiar odour and usually a bitter taste. Yeast retains its vitality in a ten per cent sucrose solution for more than 20 years but a high temperature and moisture kill it. That is why the housewife does her preserving over a hot stove, keeping the jars in steaming water. A temperature as low as 130 degrees below zero is not harmful to yeast and careful drying preserves it for several years.

Industries making bread and other bakery products use about nine million pounds of yeast and yeast powders in a year. We are told that in 1858 in the city of London, England, there were 300,000 gallons of alcohol lost through the making of bread. This was probably due to the fact that the barley was used in producing malt for the making of bread instead of making beer. Some people to-day use beer in making bread and doughnuts.

Yeast is used by distillers and brewers to make their products sparkling and stimulating. It can also be bought in a food form as a medicinal agent.

During 1935, Canada produced 15,000,000 pounds of yeast and yeast food with a factory value of \$3,000,000 and imported about a million and a half pounds, according to the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 246. Thurs. June 3, 1937 -- Cost of the Mentally Sick.

The daily average number of patients treated in Canadian mental institutions in 1935 was 38,000. The total number of patients registered was 41,000. This means that one person in every 275 or 280 of the people of the Dominion had been mentally sick in that year. Quite probably there were some who were not treated at mental institutions, so that the ratio would be altered if all cases were recorded.

The total expenditures for maintenance are between eleven and twelve million dollars, so that the cost to the people for mentally sick is about one dollar per capita in the year. These costs are met mainly by government and municipal payments, for the fees paid by patients are slightly less than two millions. Gifts from benevolent people and other sources of revenue amount to a considerable sum also, running close to another two millions.

There are 56 of these institutions in Canada and they have a staff of over 7,000. There are 226 physicians who are on full time at the institutions along with 46 on part time. The graduate nurses numbered 838. Then there are over one hundred teachers and 38 dentists on full and part time. The salaries account for slightly over \$5,000,000 or nearly half of the whole cost of maintenance. Provisions cost about \$2,400,000. Almost half of the maintenance charge was in Ontario, according to the reports by the Institutional Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 247. Fri. June 4, 1937 -- Typewriters.

The first recorded plan of a typewriter was set forth in an English patent granted to Henry Mill in 1714. His machine, he said, "would impress letters, one after another, as in writing". However, there is no record showing that he

completed his machine. The list of type writing pioneers includes Progin of France, Wheatstone of England, and several Americans, but the most successful of all was Christopher Sholes, a printer and newspaper man who built his first model in 1867, when he was 48 years of age.

Sholes continued improvements to his model, assisted financially by James Densmore, a Pennsylvania business man, who became his partner. In 1873 Sholes sold his patent rights for \$12,000 to the Remington Company, which manufactured firearms, sewing machines and farm tools. Densmore also turned over his rights but on a royalty basis and in the course of years obtained royalties of more than a million dollars. Sholes died in 1890 when he was 71; he had lived to see his important invention come into general use.

The typewriter has been a great boon to business generally as well as to writers of all kinds and is an essential part of the equipment of all well appointed offices. It has provided employment for a large army of women who seem to possess in great degree the qualities that make good stenographers and typists. There are in Canada 62,000 female stenographers and typists, according to the last census.

The production of typewriters in Canada in 1935 was close to 16,000 machines. There were over 3,000 exported and nearly 5,000 imported. Among the imports were special typewriters for the use of the blind in this country.

These figures are supplied by the Manufactures Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 248. Sat. June 5, 1937 -- Mustard.

Very interesting was the story told by a Lethbridge newspaper a few days ago that two southern Alberta farmers had spiced things up by growing 30,000 pounds of mustard seed which was shipped east to a manufacturing concern, there to be processed into the ingredient which is the running mate of ham.

Mustard was employed as a condiment by the Anglo-Saxons and in Norman times was commonly used in mixture with honey, wine and vinegar, a toothsome thought.

There are several varieties of mustard, which is a hardy annual. Black and white are the species most commonly cultivated for the preparation of table mustard. The seeds are used and the flour is usually diluted with wheat flour and coloured with turmeric. The dressings from the preparation of mustard yield a non-drying fixed oil which, however, should not be confused with the true mustard oil obtained by distillation of the seeds with water. The leaves are sometimes used as a food.

Nor should the by-products be confused with the poisonous mustard gas which had such dreadful effects upon the eyes and lungs of Canadian soldiers at Ypres in June, 1917. It is a pale, yellow liquid obtained by the action of dry ethylene on sulphur monochloride. The two varieties of the troublesome wild mustard often seen in Canada are the Black Mustard and Brassica juncea.

We spend considerable money on mustard, the imports being valued at between \$300,000 and \$350,000, while the home production has a vactory value of over \$300,000.



The foregoing information comes from the Department of Agriculture and the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 249. Sun. June 6, 1937 -- An Unique Government Service.

The Trumpeter Swan is the largest waterfowl in North America. At one time this magnificent bird was common from the Pacific Coast to the Middle West but it now has disappeared from all except the most westerly part of its former range.

In early days the Trumpeter Swan was hunted for its plumage which provided the valuable swansdown of commerce.

Most of the Trumpeter Swans now in existence are found in British Columbia, both winter and summer. Some of them spend the winter months on northern rivers whose isolation offers sanctuary and where stretches of open water provide food. The seeds of the yellow pond-lily and water-shield, the tubers of sago pondweed and other kinds of water vegetation are eaten.

Sometimes in very cold winters the feeding grounds are frozen over and the Trumpeter Swans may suffer severely. In order to prevent the starvation of these birds it is necessary to supply them with barley or other grain. On one wintering ground a supply of grain is taken by pack-horse from the nearest settlement a distance of seventy-five miles.

The Dominion Government maintains a special warden service for the protection of these valuable birds and under this care their numbers have slightly increased.

A smaller relative of the Trumpeter Swan and resembling it very closely is the Whistling Swan which nests in the Arctic and is relatively abundant.

This information comes to the Dominion Bureau of Statistics from the Lands, Parks and Forests Branch of the Department of Mines and Resources.

No. 250. Mon. June 7, 1937 -- Cars and Trailers.

The trailer evidently has become a very popular mode of holiday travel, for there were 47,000 of them registered in Canada last year, which was an increase of more than seven thousand over 1935. These trailers are in great variety, from simple little cart-like affairs to furnished homes on wheels, some quite beautiful, others not quite so artistic. More than half of them were registered in Ontario.

The number of automobiles is expanding rapidly in Canada. There was an increase last year of 64,000 and the total registrations number 1,240,000. Every province showed an increase, starting with Prince Edward Island on the east where there were 600 more cars. There were 37 more in the Yukon.

The number of persons to each motor vehicle in 1936 was 8.9 and, as more than two thousand of these were buses, it does not seem an exaggeration to say that the whole population of the Dominion could be taken for a car ride at the same hour and nobody need be left at home to watch the kettle boil.

From Ontario to the Pacific Coast the ratio of cars to the population is very much greater than in the East. In Ontario there is one car for every 6.3 persons

but in Quebec it is one in every 16.9. British Columbia is the second province with one in every 7.1 persons, Alberta third with one in 7.9. Prince Edward Island is fourth with one in 8.9, according to the Transportation Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 251. Tues. June 8, 1937 -- Vanilla Beans.

Vanilla beans are the fruit of an orchid, the only orchid out of many thousands that produces an edible product. It is cultivated chiefly by Oriental labour in the Indian Ocean islands of Reunion, Mauritius and Seychelles, and to a small extent, on the eastern coast of Mexico.

The cultivation of vanilla is very exacting and is a most unhealthful occupation. It is a climbing vine and must grow in the shady and humid forests. Owing to a peculiarity of the blossom, each one must be fertilized by means of a small splinter of wood in the hand of the attendant.

The beans are gathered while green and look like green bananas in shape and colour but are only about three-quarters of an inch in diameter. The odour and flavour of the beans are developed during curing. The green fruit is alternately sunned and sweated, a type of fermentation. The value of the final product depends on the curing, therefore long experience and considerable ability are necessary for its success.

Pure vanilla is expensive. The extract which is commonly used is made by percolating the finely chopped beans with dilute alcohol in a manner similar to that used for making coffee in a percolator. Vanillin, which is an artificial vanilla flavouring, is produced from sugar by electrolysis.

The imports of vanilla beans into Canada last year amounted to 69,000 pounds valued at \$179,000, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 252. Wed. June 9, 1937 -- The Gem of the Ocean.

The Pearl is the birth gem for June. From prehistoric times it has been worshipped for its beauty. It is mentioned in the Book of Job and in the Talmud. During the height of Rome's power, pearls were the most desired possessions of her princes and women of fashion. Throughout history, in dedications, gifts and benefactions, the pearl was the predominating jewel, chosen to express human feeling at its height. The Gaekwar of Baroda has a sash of one hundred rows of pearls. The value of seven of these rows is near to a million dollars. Many old stories say that these beautiful gems were tears which the gods changed into pearls.

The pearl of the oyster is built up of layer on layer of carbonate of lime, skin on skin, similar to the layers of an onion. The trade name generally applied to all salt water pearls is the "oriental" because of the superior orient or sheen they are said to possess. Nor do fresh water pearls have the fine colours of the salt water gems. Incidentally the true or gem-quality pearls are almost never found in edible oysters.

The source of the oriental pearl is the Persian Gulf, the northern coasts of Australia, Japan, Panama, Venezuela and the South Sea Islands. Fresh water pearls are got in some North American rivers and in Scotland, while the pink Conch pearl is



found in Florida and the West Indies.

In common with their sisters of other lands the women of Canada love pearls and the importation last year of these gems, real and artificial, was upwards of \$100,000, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 253. Thurs. June 10, 1937 - Figs.

The fig tree is a native of sub-tropical countries and belongs to the same family as the bo-tree, the banyan and the indiarubber plant. The bo-tree and the banyan are venerated by the Brahmans but we of the Western World think more of the edible quality of the fig.

The tree is hardier than the orange and can be grown in sheltered places in England and in the southern United States. For many years the growing of figs was unsuccessful in California; the trees would not bear fruit. The answer to the problem was found in the absence of a certain insect which crawls into the cavity of the fig and fertilizes the many blossoms inside. This insect was brought from its native Mediterranean home and after many expensive and difficult attempts was finally acclimatized.

Turkey and Asia Minor produce the greatest quantity of figs used commercially, Smyrna being considered the leading fig market in the world. Because of the simple drying process, this fruit is an important crop along the Mediterranean from one end to the other. During the War when the Turkish supply was cut off, the region around Malaga, Spain, suddenly became an important exporting centre.

In the United States and most temperate countries, figs are used as a sweetmeat but in the Mediterranean countries it is a standard article of diet. It is so abundant in Chile that, although its nutritive value is high, it is in some localities considered food for beggars. In the Balearic Islands alcohol is distilled from figs and the residue fed to pigs.

Last year, of the five million pounds of figs imported into Canada, four million pounds came from Turkey, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 254. Fri. June 11, 1937 - The Cacao Tree.

There are three trees with names somewhat similar but whose products are very different; the cacao from which we get beans for cocoa and chocolate, the cocoanut with the large, hard-shelled cocoanuts and the coca whose leaves are used in the preparation of the drug cocaine.

The cacao tree is a native of tropical America, growing wild in the Amazon and Orinocco River Valley forests. At the time when America was discovered by Europeans, it was grown for food from Panama to southern Mexico. The Aztecs used the dry seeds for money. The Spaniards carried the product to the Philippines and the early exportation of the beans to Spain and Portugal flourished. On a per capita basis, Spain and Portugal are said to use more cacao beans than any other European country.

The climatic conditions for growing cacao trees are exacting. Heat is necessary but the full blaze of the tropical sun is too strong, therefore the trees are planted under the shade of taller ones such as the banana. The moist, low plains which are most suitable for cultivation are unwholesome for the white man. A windy location is unfavourable because the large melon-like fruit are so close to the stiff stems that they twist off instead of swaying with the branches as do apples or peaches.

The Chinese cooks in the Philippines pound the beans in mortars and flavour them with spices to suit individual tastes. In the Western World, the beans are taken to factories where expensive machinery pulverizes them into a powder to which sugar, and sometimes milk, is added. The manufacture of chocolate is one of the ways in which Switzerland utilizes the mountain pastures through the dairy industry to the fullest extent. Cocoa differs from chocolate in that most of the nutritious fat has been removed.

Imports last year amounting to 358,000 cwt valued at two million dollars, show an increase of 118,000 cwt. over last year, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

NOTE:- For further information regarding Cocoa, see No. 80, Series II.

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No. 255. Sat. June 12, 1937 -- Printing.

There stands in the middle of the square in front of the Cathedral at Mainz, the ancient German city on the Rhine, a statue of Johann Gutenberg. He was the father of printing. We are the inheritors of a measureless wealth that he gave us.

He belonged to a family which had long been prominent locally. He served his apprenticeship as a stone cutter. Studying the playing cards printed from one rough block, the little rough wood-cut pictures of saints and Bible characters and the curiously carved images which he made, it seemed to him there ought to be other ways of making books than laboriously writing them by hand.

One day he began cutting letters in wood and fixing them on a wooden block. It was the beginning of his printing press. A year or two went by and then Gutenberg printed a book from solid type - letters cut in a solid block of wood so that when that book was printed there could be no other use for the type.

Gutenberg foresaw a good deal. He remarked; "The printed book is not like any other art. A painter sketches his figures on the canvas and perfects the creation of his thought, the same with the poet, the engraver, the musician, we, on the contrary, with our presses, are only the servants of others".

The old man Gutenberg, who was born in 1400 and died in 1468, was right. The book has become everything and the printer almost nothing, yet without the printer where would the writer be and where would the whole world be now?

There are about 35,000 persons engaged in the printing trade in Canada and the average income of man, boy and girl is about \$1,300, according to the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 256. Sun. June 13, 1937 -- A Brunette Canada Goose.

A race of dark-complexioned wild geese reside in the Coastal region of British Columbia and south-eastern Alaska. They are similar in general appearance and size to their better known relative the Canada Goose, or "honker", but differ in being very much darker. They are known as the White-cheeked Goose.

Apart from the difference in coloration between these two races of geese there are differences in habit also, the most important being that of migration. The Canada Goose makes long annual journeys to and from its nesting grounds; some raise their young on James Bay and spend the winter on the Gulf of Mexico. The White-cheeked Goose, on the other hand, may spend the entire year, or even all its life time, in the same region.

Wild geese do not breed until they are at least two years old so that in every goose community there is usually a bachelor population of both sexes. These non-breeding birds remain in sociable flocks during the time the birds of an older generation are incubating eggs or caring for young.

During the moulting period, which lasts for a month or so in the summer, geese are unable to fly and for their protection must depend on hiding instead of flight. At this time they are seldom seen but at almost any other season White-cheeked Geese are conspicuous on the tide flats along many of the deep fiords which cut deeply into the shore line of British Columbia.

A sight of these magnificent geese in powerful flight and the rich chorus of their deep voices can never be forgotten, is the remark made in a note by the Lands, Parks and Forests Branch of the Department of Mines and Resources to the Dominion Bureau of Statistics.

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No. 257. Mon. June 14, 1937 -- Autos Generate Their Own Gas.

Reports from Germany show that considerably more than half of the 100,000 or so large capacity automotive vehicles and several thousand automobiles are equipped with engines and carburetors for light fuels, and the use of home fuels, especially of compressed and liquefied gases, is constantly increasing.

This in itself does not perhaps mean very much to the casual listener. It sounds fantastic, but the explanation is sufficient to arouse intense interest, for it seems to bespeak a revolution in automobile fuelling.

It means that a gas generator can be and is being accommodated in a clean-cut manner in a bus and even in a small car. The commonest fuel is wood. This sounds bulky but it is not. The illustrations show the generator and its supply of wood incorporated in the stream-line bus body and there is no difference in appearance from the bodies of many of the stream-line cars we see everywhere in this country.

The idea that a farmer can use the products of his wood lot in a gas generator is enticing. But the manufacturers are not stopping at wood, they are encouraging the use of home fuels by providing engines which, by slight modifications, can be adapted to working on different fuels.

Because of the success of the use of producer-gas in Europe, the Forest

Products Laboratories of the Department of the Interior are testing its efficiency in British Columbia where considerable interest is being shown due to the high cost of gasoline and fuel oil in isolated districts.

What this will mean if it succeeds in Canada may be estimated by the fact that 624,000,000 gallons of gasoline were used in the Dominion last year.

This information comes from the Mining and Metallurgical Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

NOTE: - Since the foregoing was broadcast, a note from the United States Commercial Attache's office at Shanghai, China, has appeared in one of the publications of the Washington Bureau of Foreign and Domestic Commerce, saying, "of the 1,110 Diesel motor buses and trucks estimated in operation in China, 95 per cent are of German manufacture."

"The conversion of gasoline motor trucks and buses to charcoal burning devices has risen perceptibly, upwards of 500 and possibly 1,000 vehicles being so equipped. Despite the acknowledged loss of power on grades, and the bad effect of this fuel on both cylinders and pistons, the use of such equipment increases. Motor vehicles so equipped develop about 20 per cent less power than gasoline engines, but can be run at one-third to one-fifth the cost of gasoline operation. One of the major petroleum sales organizations estimated that charcoal burning vehicles during 1936 displaced 627,000 gallons of gasoline".

No. 258. Tues. June 15, 1937 -- Cassava.

The cassava plant is one of the tropical rivals of the sweet potato. It not only fills the local need where it is used for food but it is commercially important in temperate countries because of its dried starchy product called tapioca.

The plant grows to a height of eight feet and has large palmately divided leaves. The important part of the cassava is the root which is very much like a large parsnip and contains an acrid milky juice. There are two varieties, the Sweet and the Bitter, the latter containing a deadly poison which is expelled by heat.

In the countries where it grows the natives boil the root, grate it and dry the pulp. From the flour thus obtained, thin stiff cakes are made which, although not as light as our bread, are very nutritive. Boiled or baked cassava roots are standard articles of diet.

The condiment cassareep is made from the grated roots and the juice is sometimes extracted, fermented and prepared as a beverage known as piwarry.

But it is in the manufacture of tapioca that the cassava is of greatest importance to us. The plant is torn to pieces and the starchy substance washed out in water and allowed to settle. The starch is heated gently on iron plates until it forms granules or the familiar round lumps of tapioca.

Last year about four million pounds of tapioca were brought into Canada, nearly three million pounds of it coming from the Dutch East Indies. There were also 211,000 pounds of cassava flour imported from that country for the manufacture of



explosives, according to the Mining and Metallurgical Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 259. Wed. June 16, 1937 -- Cinchona Bark.

Quinine is a medicinal product obtained from the bark of the cinchona tree. It is so highly prized as a remedy for certain fevers and malaria that the British Government orders it to be kept on sale in every post office in India.

The tree is a native of South America where it grew wild and unattended until the Dutch cultivated it in Java less than one hundred years ago. The leaves are similar to those of the laurel and the fragrant blossoms are pink and white. The bark is not used until the trees are six years old. The early method followed by the South American Indians was to cut down the tree. Had this procedure gone on the danger of extinction was imminent, but the present way is to remove the bark in strips covering the denuded part with moss until the wound heals.

The Indians of Peru called the trees "Kina" and the name cinchona originated after the Countess of Chinchon, wife of the viceroy to Peru, brought it to Europe in 1639. The lady had been cured of an obstinate fever while in Peru and she brought the remedy back with her. The bark was also called Jesuits Bark because later the Jesuit missionaries brought it to Rome and distributed it.

Then it fell into practical disuse in Europe until again brought to public attention by an English apothecary, Robert Talbot, who cured Charles II of a fever in 1678. After other eminent persons on the Continent, including the Dauphin, had benefited from the drug, Louis XIV purchased the secret. Thus the adoption of quinine as a medicine was assured.

The plantations of cinchona trees under cultivation to-day in India and Ceylon owe their origin to Clements Markham, an Englishman who introduced the trees into India in 1860 and through man's perseverance in growing this precious bark, the price is now only one thirtieth of that which prevailed in 1870.

Over 100,000 ounces of quinine salts were imported into Canada last year, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 260. Thurs. June 17, 1937 -- Dogs.

Most of man's work has been done by ten animals, five of them of almost world-wide distribution -- the horse, ox, ass, mule and dog -- and five of very special location -- the camel, elephant, reindeer, yak and llama. The dog is probably the least important of the draught animals and yet it rivals man in its ability to live in all climates. It goes wherever man goes and on the shores of the Arctic can live on a diet of meat and fish or beans and bananas mixed with a little meat in equatorial Africa.

The fur-trader and explorer in the northern districts depend upon dog teams for their travelling and many touching stories are told of this service to man in snow-bound areas. In France, Holland, Belgium and Germany it is not uncommon to see dogs pulling heavy carts laden with farm produce, nor unusual to find a

peasant woman on one side of the wagon tongue and a dog on the other. The dog in these countries takes the place of the horse because of the small patch of land available to a family cannot be used to feed a large work animal. In Germany pet dogs are heavily taxed but the work dog has been left untaxed. In many Eastern and most Mohammedan cities the dog acts as a scavenger.

Besides being well known as a faithful friend to man, this animal has been taught to do many things, such as guiding blind people, rescue work, acrobatics and tending sheep. Breeding for special purposes has become a business. For the improvement of stock there were 184 dogs valued at \$11,000 imported last year. Of this number 54 came from the United Kingdom, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 261. Fri. June 18, 1937 -- Cleaner Milk Bottles.

The average person does not spend much time or energy in polishing the milk bottle before placing it on the door-step for the milkman. The responsibility of making the bottles absolutely clean is left to the dairies with their huge washing machines. One of the latest cleaners used for this purpose is sodium metasilicate.

Early attempts to manufacture sodium metasilicate economically and in an acceptable form met with heart-breaking failure. The material invariably hardened in the barrel into a hard, shrunken mass, defying both chisel and sledge hammer. Finally a way was found where it could be crystallized into a hard cake which could be ground into a free flowing powder and kept dry under storage for an indefinite period of time. To-day it can be purchased as a white, granular powder which dissolves easily in hot or cold water, or in solution form.

This basic alkali has four outstanding qualities as a cleanser: 1, the wetting power of the solution is increased; 2, it separates the dirt film and breaks it up; 3, it emulsifies fatty and oily materials and 4, it rinses freely carrying the impurities with it.

This cleaner is claimed to be the safest and most generally satisfactory for the expensive tinned surfaces found in dairies, bakeries and other food-handling plants. It is also used in the preparation of textiles for level dyeing and on metals for electroplating. When used in scalding water it facilitates the removal of hair from hogs.

Figures for soda metasilicate are not shown separately but there are two firms making sodium silicates of all grades in Canada and their output is steadily increasing. Last year over seven million pounds of sodium silicate was imported, mostly from the United States, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 262. Sat. June 19, 1937 -- Carrageen.

One of Canada's Trade Commissioners in Ireland tells a very interesting story about Carrageen, or Irish moss. Carrageen is gathered on the western seaboard of Ireland and is not subjected to any manufacturing process. It is bleached by the ozone and sunlight of the Atlantic and its value as a food has long been recognized by medical science. It is sometimes as much as twelve inches long, branched by



repeated forking, tough and flexible and coloured from yellowish green to red and purple.

The principal content of Carrageen is gelatine and then there is mineral matter containing iodine, calcium, sodium, potassium, magnesium and traces of bromine, chlorine and sulphur. It makes a pleasant drink.

Carrageen has been gathered by the peasants in the Irish speaking districts, mainly Donegal and Clare, for ages. Within the past three years however, the Government has assisted the industry. There is a depot in Dublin and the main purpose of the state control is to see that the growers get a fair price and that the quality of the Carrageen is maintained.

Because of its high gelatinous content, it makes an ingredient in the manufacture of special paints and about 100 tons of it are used for that purpose by the leading manufactures in the United Kingdom. The Lancashire textile industries use about 200 tons for sizing. It is worth \$100 and upwards per ton.

This Irish Moss is highly favoured by some of our Canadian manufacturers and, if for no other reason, the romance of it has an appeal. The last shipment was about three tons, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 263. Sun. June 20, 1937 -- Leaf Collections.

We talk and write of "leafy June". It is the month of summer when the forests and hedgerows are arrayed in all their glory. This is the time, therefore, when people who are interested in foliage of trees and shrubs make little pilgrimages to collect leaves. It is a lesson-learning time.

The Division of Botany at the Central Experimental Farm tells us that now is the best time to make collections of fully grown leaves with the colour and texture still unspoiled by the attacks of insects, fungi and the elements.

These collections of leaves may be quite readily preserved if placed between two pieces of ordinary newspaper and this between some absorbent material, such as blotting-paper; the newspaper and blotting-paper thus forming the dryers. Place these dryers between two pieces of board, and upon the top a weight. The leaves will be dry in about twenty-four hours after they have been put in. They retain their natural colour almost indefinitely.

Here are some leaves which might be collected now; soft or silver maple, sugar maple, oak, grape, birch, sumach, smoke bush, elder, hawthorn, choke cherry, elm, witch-hazel and sweet viburnum. An artistic touch might be given to the spring collection by adding to them in the fall the same varieties when the colours have changed from green to warm tints of red and yellow.

Such a collection not only acts as a hobby but acquaints a person with the numerous Canadian trees. For instance very few people know that there are ten different species of maple trees, seven of birch, eleven of oak and ten of pine. Knowledge of our forest friends will make us more thoughtful of their preservation.

No. 264. Mon. June 21, 1937 -- The Ross's Goose.

Canada has many kinds of wild geese, and throughout the greater part of the Dominion they are highly migratory. One of the earliest signs of spring is the winging northward of these conspicuous birds to their nesting grounds in the far north, and a sure sign of the onset of winter is their southward flight. Their unerring instinct in travelling the skyways has intrigued man from the earliest times.

One of the least widely known of the wild geese of Canada is Ross's Goose. It is a small white goose no larger than a wild Mallard duck. It winters in California and in migration travels along a narrow line which takes it across the Rockies to Montana, northward through Alberta, and then somewhere beyond Great Slave Lake or Great Bear Lake it flies off into the unknown to nest no one knows where.

The Biological Survey of the United States has announced that one of its waterfowl observers may attempt the solution of this last waterfowl mystery of the continent, and others are known to be interested in solving the mystery. The Department of Mines and Resources, through the National Parks Bureau and the Northwest Territories administration, has helped the investigators by issuing permits, and the race is to the swiftest. Meanwhile, the nesting-place of Ross's Goose remains one of the mysteries of the Arctic.

This information comes from the Lands, Parks and Forest Branch of the Department of Mines and Resources to the Dominion Bureau of Statistics.

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No. 265. Tues. June 22, 1937 -- Mining Under the Sea.

One of the most extraordinary things in Canadian industry is that much coal is mined under the sea three miles away from the shores of Cape Breton Island. This Sydney field is the most important coal deposit in Eastern Canada.

The sinking of the first shaft to work submarine coal was begun in 1868 but, owing to water trouble, it was not completed until eight years later. This shaft is of historical interest as it was the first on the American continent to use cast-iron tubing for damming back the heavy feeders of water encountered whilst sinking. This same tubing is still in use but, of course, it has seriously deteriorated in about 70 years and it has been reinforced recently by the modern method of pumping cement grout into all the rock fissures behind the tubing.

When this shaft had reached one mile and a quarter under the sea in 1924 a second shaft was begun, and, apart from these two mines, the collieries now working submarine areas have passed gradually from land to submarine conditions without making any changes in practice beyond leaving 50 per cent of the coal as pillars to support the bed of the ocean.

More exacting conditions naturally have to be considered, the increasing length of transport of the men, materials and minerals, longer airways and the more distant supply of power.

Coal from under the sea comes to land at the rate of some thousands of tons a day, according to the Mining Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.



No. 266. Wed. June 23, 1937 -- Honorary Degrees.

Honorary degrees are usually doctorates of laws or divinity. University calendars do not describe the qualifications for which they are granted, but the general idea is that they are bestowed in recognition of eminent contributions to the public good by the recipients. The D.D.'s suggest outstanding theologians or pulpit preachers but the outstanding merits of the L.L.D.'s are much more varied. Soldiers and sailors have been known to win that distinction. Laws is an all embracing designation.

About one hundred of these honorary degrees are conferred per year by Canadian universities and colleges -- over 1400 in the last 15 years. Of these, only 18, or one per year, have been conferred on women.

Women do better in the doctorates won in the university course. These are the women of the younger generation. They earned 77 of the doctorates in 15 years, or five per-year, while the men earned 791.

A considerable number of Canadians do post-graduate work in the United States for doctors' degrees but, even allowing for these, the doctorate in Canada remains primarily an honorary degree -- apart, of course, from the medical and dental varieties.

There is a change coming about, however, for fifteen years ago the honorary doctorates were about three times as numerous as those won by examination, but in the last few years there has not been a great deal of difference in their numbers. The graduate faculties of Canadian universities are being gradually built up, while the annual number of honorary degrees remains fairly constant, according to the Education Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 267. Thurs. June 24, 1937 -- Saint John the Baptist.

To-day is the feast of Saint John the Baptist, the patron saint of the French-Canadians. It is celebrated all over Canada wherever there is a French-Canadian group strong enough to form a branch of the Association Saint-Jean-Baptiste. Saint John the Baptist is for the French-Canadians what Saint George is for the Englishmen, Saint Andrew for the Scotsmen, Saint Patrick for the Irishmen and Saint David for the Welshmen.

The association was founded by Louis Duvernay, in Montreal, in 1834. It has ramifications in many large centres in the United States, especially in New York, most of the New England cities, Detroit and San Francisco. It has also a branch in Paris. The celebration consists generally of a street parade with allegorical floats, high mass in the open air, and a banquet flavoured with patriotic speeches.

According to the last census, the French-Canadian population of Canada was 2,927,990 of which 2,270,059 were in Quebec, 300,000 in Ontario, 137,000 in New Brunswick and 57,000 in Nova Scotia, the balance being distributed over all the other provinces. There were 15,000 in British Columbia and 51,000 in Saskatchewan. There are also over two and a half million French-Canadians living in the United States, mainly in the New England States and in Michigan and Illinois, according to the Census Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 268. Fri. June 25, 1937 -- Estimating the Population.

In the entrance hall of the Dominion Bureau of Statistics on Green Island which nestles above the Twin Falls that empty the Rideau River into Father Ottawa there is a curious little instrument upon the wall which records the estimated population of the Dominion of Canada every three or four minutes.

Coloured lights indicate the progress made from hour to hour in building up the population. They turn off and on automatically and as they appear or disappear the totals automatically accumulate.

The most joyous light is orange in colour for when it flicks on it indicates that a child has been born. On an average there are 645 babies born in this Dominion every day, that is one in every two minutes and 14 seconds.

Alongside the orange bulb is a red light which shows that a death has taken place. The average death rate in Canada is 288 each day or one every five minutes.

When the green light shows up it means that an immigrant, in all likelihood full of hope and confidence, has arrived to put up a brave battle for success in the new land. There are 124 of them every day on the average at this time, but there are 66 persons who leave the country daily, as shown by the yellow light.

By addition and subtraction, the estimated increase or decrease in population can be arrived at. At present there is an increase of one person every three minutes and 28 seconds. This is shown by a white light. To-night it is 11,228,872. At the census in 1931 it was 10,376,786, so that the population has increased by about 853,000 since then. These, of course, are only estimates. Only when the Census is taken can we be absolutely certain.

No. 269. Sat. June 26, 1937 -- Wedding Rings.

June is the month of weddings which have an economic as well as a social and sentimental interest. From the earliest times the wearing of a ring has been held to prevent the entrance of evil spirits into the body of the wearer; and in all parts of the world it has often been the custom to safeguard children from like influences by encircling their wrists with thread of cord. It used to be quite common to see sailors with plain gold rings in their ear-lobes, believing that by their benign influence the wearers would return safely home from their voyages. Even sanctity has been attached to the ring or circle, which has also been regarded as symbolic of eternity.

At the present day the efficacy of the finger-ring is still greatly believed in and many civilized people would not regard themselves as truly wedded if a ring did not figure in the marriage ceremony. There is something sacred also about an espousal ring.

In Russian marriages the bridegroom has a gold ring emblematic of the sun and the bride a silver one emblematic of the moon.

Fashions in wedding rings change. A hundred years ago they were as narrow as they are to-day, but gradually they became wider until fifty years later, no ring



was acceptable unless it was broad and heavy. The pendulum swung back to very narrow rings of to-day but already there is a tendency to revert to heavier rings.

And now for the economic aspect. Half the world's brides are said to be married with rings made in Birmingham, England, but practically all those used in Canada are made in this country. There were over 80,000 marriages in the Dominion last year, and presumably as many new wedding rings in requisition, according to the Manufactures Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 270. Sun. June 27, 1937 -- Flowerpot Island.

One of the most interesting sections of the Georgian Bay Islands National Park is Flowerpot Island, situated at the extreme northern end of Bruce peninsula, in the mouth of Georgian Bay, Ontario. This island owes its name to two rock pillars, separated from the limestone cliffs by erosion, which stand out boldly like immense flower pots. Small trees and bushes growing in the fissures of the rocks accentuate the resemblance.

On the eastern face of the island, cliffs of weathered limestone rise to a height of 300 feet above the level of the lake, in which are located a number of caves, while the rocky bluffs are covered with heavy growths of spruce, pine and balsam. Trails have been cut through the woods and up to the cliffs leading to the best known caves, and shelters equipped with camp-stoves have been constructed at different points.

Flowerpot Island was once the property of the Chippewa Indians, and is regarded with considerable superstition by the Indians of the district. An Indian legend relates that a prince and princess of different tribes, who were forbidden by their parents to marry, eloped and fled to what is now Flowerpot Island. They were never known to return, and the superstition exists to this day that the two pillars represent their effigies in stone.

Flowerpot Island is one of the thirty islands included in the Georgian Bay Islands scenic park. This park was established in 1929 and covers an area of 5.37 square miles. At this holiday time it is interesting to add that, based on information supplied by the Department of Mines and Natural Resources, there is a list of 20 National Parks with an area of 29,000 square miles listed in the Canada Year Book which is published by the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 271. Mon. June 28, 1937 -- New Fuel Mixture.

After five years of experiments with a new fuel mixture of pulverized coal and crude oil, carried out in England by a Tyneside firm in conjunction with the Cunard Steamship Company, tests have now been completed. It is said that the new colloidal fuel may be adopted as the principal method of firing ships in the British navy and the mercantile service.

It is a mixture of 60 per cent crude oil and 40 per cent pulverized coal, and technically it gives the same results as oil fuel, although it is appreciably cheaper.

The experiments have been carried out on various well-known vessels of the Cunard Line such as the Berengaria and Corinthia and it is stated that consistently good results have been obtained.

If the production of colloidal fuel in large quantities is undertaken it will mean a great deal to the coal industry of Great Britain and other countries where coal but not oil is available.

In Canada the production of crude petroleum is 52 or 53 million gallons a year whereas we import over two and three-quarter billion gallons of petroleum of all kinds, including 24 million for ships alone. Colloidal fuel, if it comes into vogue here, would therefore increase the consumption of Canadian coal by a very large amount.

These figures come from the Mining and Metallurgical Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 272. Tues. June 29, 1937 -- Industrial Production.

The statistical progress of the rise of Canada from out of the depression is now becoming clearer as the figures are being completed. We know, of course, that the lowest point of the depression was reached in 1933 and that the revival commenced in the latter part of that year. Progress upward has been fairly continuous since that time.

The total figures for 1936 are not all available but there has been recorded enough to show that the gain has been maintained. We have, however, the complete picture for 1935 and it indicates a betterment of six per cent over 1934 in the volume of productive operations. The estimated increase in population was only one per cent.

The Dominion figure of net commodity production in 1935 was \$219 per capita and only two of the provinces exceeded that average. Owing to its preeminent industrial position, Ontario had a per capita record of \$286, an improvement of \$18, principally due to advances in manufacturing, agriculture and mining. British Columbia registered \$250, an increase of \$17, largely because of forestry and manufacturing.

Alberta was third with \$203, and the rest in the following order: Quebec, Nova Scotia, Saskatchewan, Manitoba, New Brunswick and Prince Edward Island. Manitoba and Alberta alone showed recessions.

Total production was \$2,395,000,000 according to a report issued to-day by the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 273. Wed. June 30, 1937 -- Molasses.

The old fashioned open-kettle type of molasses is the finest quality made. It is prepared by boiling the cane syrup to the point where the sugars crystallize out. The entire mass is placed in barrels and the molasses allowed to drip from the sugar. It commands a high price because of its excellent flavour but relatively small amounts are produced.



Beet sugar, the kind we produce in Canada, is only edible after it has been through the machinery of a great refinery but, in contrast with beet sugar, cane juice is a prized article of food in all stages of manufacture, even when sucked directly from the cane itself. It provides for the native of the tropics a cheaper sugar supply than the grocery store yields in the land of winter frosts.

The mill that suffices for making sugar and molasses for local use in the interior of Venezuela, Guatemala or India may have two or three small rollers turned by oxen getting 50 or at most 75 per cent of the juice. This is boiled in open vats, and much of the sugar is left in the form of molasses; however, the molasses is one of the great staples in the nourishment of the masses in many tropical countries.

We consume large quantities of molasses in Canada, the dark coloured variety of which used to be known as treacle. Last year the home production was 1,727,000 gallons and we imported over 13 million gallons and exported some, so that the consumption is quite large. Much of it goes into the feeding of cattle, according to the Agricultural Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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Canada. Statistics. 1937. B-1.

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DEPARTMENT OF  
TRADE AND COMMERCE



**A FACT A DAY ABOUT CANADA**

FROM THE

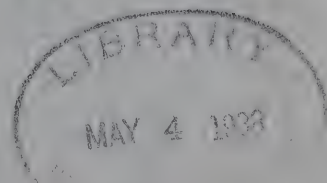
**DOMINION BUREAU OF STATISTICS**

AS SUPPLIED TO THE

**CANADIAN BROADCASTING CORPORATION**

DURING JULY 1937.

**THIRD SERIES**



Published by Authority of the HON. W. D. EULER, M.P.,  
Minister of Trade and Commerce.

Price 25 cents per annum



## Contents

- |   |                                    |
|---|------------------------------------|
| 274. Fur Farms.                         | 290. Evaporated Milk.              |
| 275. Territorial Fishing.               | 291. The Locust Bean.              |
| 276. The Basis of Western Civilization. | 292. Helium from Natural Gas.      |
| 277. The National Emblem.               | 293. Beeswax.                      |
| 278. Sending Cattle to Britain.         | 294. Empire Film Library.          |
| 279. Instalment Buying.                 | 295. Canadian Exhibits Abroad.     |
| 280. Eggs for Export.                   | 296. Marketing of Precious Metals. |
| 281. Irishmen Going Back Home.          | 297. Ghee or Clarified Butter.     |
| 282. The Marmot.                        | 298. Our Western People.           |
| 283. Limestone.                         | 299. Veterinary Science.           |
| 284. Rubies.                            | 300. Limes.                        |
| 285. Bauxite for Aluminium.             | 301. Central Electric Stations.    |
| 286. Oil Cake and Meal.                 | 302. A New Use for Yellow Cedar.   |
| 287. Pork Eating Canadians.             | 303. Vocational Training.          |
| 288. The Japanese Beetle.               | 304. Glassware.                    |
| 289. The Modern Fishing Industry.       |                                    |

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Note:- A Fact a Day is broadcast over the Corporation's network immediately after the Canadian Press News broadcast.

James Muir,  
Editor.

A Fact a Day about Canada  
from the  
Dominion Bureau of Statistics

No. 274. - Thurs. July 1, 1937 -- Fur Farms

The trapping of wild fur bearing animals has a definite place in the pages of Canada's earliest history. In those days it was the practice of trappers to keep foxes caught out of season alive until the fur was prime. This custom was the beginning of the modern industry of fur farming.

In 1912 and 1913 the Dominion Commission of Conservation conducted an exhaustive inquiry into the history and possibilities of fur farming in Canada, and the resulting information gave an impetus to the industry. With the increased interest in this comparatively new endeavour came a large demand for foxes to be used as foundation stock. Fabulous prices were now obtainable for the live animals, sales of proved breeds in 1912 being recorded at from \$18,000 to \$35,000 per pair.

The number of fur farms from this time forward rapidly increased, companies as well as individuals engaging in the business. In the year 1919 the collection of data on fur farms by the Dominion Bureau of Statistics was begun, and the records for that year show 424 fox farms and five miscellaneous kinds. At this date, the industry was centred chiefly in Prince Edward Island, but with the ensuing years, the field broadened, and in 1935 there were 7,495 farms, comprising 6,632 fox farms and 863 in the miscellaneous class.

At the present time Quebec is credited with almost one-third of the total number of fur farms, Ontario 14 per cent, New Brunswick 13, Nova Scotia 12, Prince Edward Island 10, Alberta 6, Manitoba 5, Saskatchewan 4 and British Columbia 4, according to the Fur Statistics Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 275. - Friday, July 2, 1937 -- Territorial Fishing

So rich a fishing area as the North Atlantic could not fail to attract many countries in the early days. Old customs then established became elevated into rights, some of which have lasted until the present. The French shore is a Newfoundland question, now a sentimental one entirely.

Different, however, is the question of United States rights whose fishermen in the colonial period provided the chief food supply for New England and who were granted by the Treaty of Versailles in 1783 a specific liberty to a share of the Canadian inshore fisheries. Losing this by the War of 1812, the United States after 1818 surrendered all but their liberty to call at Canadian ports for shelter, wood or water, or to make repairs, and to fish around the Magdalen Islands and on the north shore of the Gulf of the St. Lawrence from Point Joli eastward, and to dry and cure their fish in any of the unsettled bays, harbours and creeks on that portion of the north shore.

By the Reciprocity Treaty of 1854 to 1866, the fish and fish products of either country were admitted into the other duty free. After that treaty was abrogated, there were various arrangements and rearrangements, but the most workable of all has been the so-called "Unratified Treaty of 1888" under the terms of which United States



fishing vessels were to be granted annual licenses authorizing them to purchase in Canadian ports provisions and outfits, to tranship their cargoes and to ship crews. Out of this treaty grew the *modus vivendi* licenses at \$1.50 per registered ton, the arrangement in effect today.

During the past hundred years the fishing industry of Canada has risen from an output of \$125,000 to over \$60,000,000, but that was abnormal. It is now around \$26,000,000, according to the Fisheries Branch, Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 276. - Saturday, July 3, 1937 - The Basis of Western Civilization

So accustomed are western people to the structure of the highly organized society built for us throughout the ages and operating successfully around us that comparatively few give a serious thought -- city people in particular -- to the food supply of our domestic animals. When we read about wheat, its supply and demand, we think unconsciously in terms of human need.

Yet our western civilization could hardly have been formed without the assistance of these animals. They have done great things for human kind, ploughed our land, borne our burdens, given the milk, without which hosts of children would have perished, provided the vitalizing meat, given us leather and wool.

The one basic difference between ourselves and the North American Indian, every whit as capable and intelligent as a Teuton or a Celt, has been that the Canadian aboriginal did not possess suitable domestic animals to work with and for him. If we were suddenly dispossessed of those best friends of ours, the whole structure of our society would be changed and starvation would stare us in the face.

These domestic animals have to be fed and that is one of the problems the farmer has to consider. The Old Testament figure of speech, "All flesh is grass", is very real to him. When his hay crop is abundant one of his worries for a season is over. The same with his oats. We grow more oats than wheat, although we hear much less about it. We feed more oats than wheat to our animals. The average crop in the last five years was 348 million bushels, while the average wheat crop was 320 million, according to the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 277. - Sunday, July 4, 1937 - The National Emblem

The first national emblem of Canada was undoubtedly the beaver and it was considered as the national emblem until 1821. In that year the union of the fur-trading companies, the North West and the Hudson Bay, diverted the fur-trade from the St. Lawrence Valley to Hudson Bay. The triumph of the Hudson's Bay over the Nor'Westers meant the virtual loss of the fur-trade to Canada, and the beaver therefore ceased to be applicable or suitable as a national emblem.

Before this happened the Maple Leaf was regarded as the emblem of the French Canadians, as distinct from the thistle which was the emblem of the Scottish Canadians. In 1834 the Maple Leaf was formally adopted as the emblem of the St. Jean Baptiste Society of Lower Canada but during the time of the rebellion in 1837, it was almost regarded as an emblem of disloyalty -- to such an extent that there was hostility to its adoption later in the Canadian West.

During the visit of the Prince of Wales, later King Edward VII, the Maple Leaf was formally adopted by resolution as the badge or emblem worn by native-born Canadians in the procession in Toronto where the Prince was being welcomed. In the same year the 100th Regiment, the Royal Canadians, incorporated the Maple Leaf in their badge.

At the time of Confederation, the armorial bearings of Quebec and Ontario bore the Maple Leaf and its acceptance became more or less official. Since then it has appeared on Canadian coins, stamps and as a badge of the Canadian militia.

The Canadian national anthem, the Maple Leaf, was composed in 1867 by Alexander Muir, a Toronto schoolmaster who came to Canada at the age of three. He was a graduate of Queen's University. He died thirty-one years ago.

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No. 278. - Monday, July 5, 1937 - Sending Cattle to Britain

The movement of cattle from the range to lands where there is better forage and an opportunity of finishing them satisfactorily for the beef market is more or less world wide for every continent has some dry range which produces lean cattle easily but fat cattle with great difficulty.

An example of this migration was afforded by the passage in former days of lean Icelanders across the sea to the United Kingdom, where they were fattened. There has not been much of that lately but until comparatively recently there were half a million head in a year. In the southern region of the Andes, Argentine cattle cross the Bolivian high plains to reach the market in the nitrate mining camps of Chile. The poor animals have to travel three days and nights without food or water through mountain passes in freezing cold.

Much easier is the lot of the Highland sheep driven slowly to market along roads with wide tracks on each side covered with luscious green grass, the sheep improving all the way. Cattle from the Irish Free State, which now sends the largest supply of meat on the hoof to the United Kingdom, have a short journey.

Western Canadian cattle going to market have a long hard journey travelling by train to the cities of Eastern Canada, and the experience of the animals which have to cross the ocean to Glasgow or Liverpool, is not a bed of roses when winds blow into gales and ships swing over on their beam ends.

We sent about 40,000 head of cattle to the United Kingdom last year, but two or three years ago we sent about 55,000, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 279. - Tuesday, July 6, 1937 - Instalment Buying

Instalment buying is not new; it existed in ancient Rome, where houses were sold on time payments. But apart from its use in the purchase of houses and lands, the scheme did not develop real significance until the nineteenth century, when rapidly increasing production created the necessity for more widespread markets. The past fifteen years have witnessed a rapid growth in instalment buying, the scheme being generally restricted to the purchase of durable goods such as furniture, musical instruments, expensive books or encyclopaedias and some other commodities having a high resale value.



Instalment buying in Canada has reached its greatest development in the purchase of motor vehicles. There are several reasons for this. The popular appeal of the motor car is high. But its cost is also sufficiently great as to prohibit its outright purchase for cash by large numbers of the people. The motor car itself is adapted to the scheme. It is durable, insurable, and, within the time limits generally set for completion of all payments, has a high resale value.

The motor dealer, being obliged to pay cash to the manufacturer before delivery of cars to his showroom, is usually unable to provide extensive credit services for his customers. To meet this situation, financing corporations have been formed which discount customers' notes, pay cash to the dealer and then collect instalments from the purchaser as they fall due.

Out of almost 116 thousand new motor vehicles purchased in Canada last year, about 43,000, or more than one out of every three, were bought on the instalment plan through the facilities of these financing corporations. The amount of the loan averaged \$700 per new vehicle. Used vehicles are also bought on the instalment plan. There were about 95,000 used motor vehicles whose purchases were financed last year. The average loan in this instance was \$265, according to the Internal Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 280. - Wednesday, July 7, 1937 - Eggs for Export

The producing of eggs for export to those countries which need them seems to offer possibilities in Canada, judging by the effective way the Irish have tackled the problem.

The eggs of the Canadian hen were worth over \$40,000,000 to the Canadian farmer last year, a sum large enough to make most men in big business open their eyes. Some years ago the value was about \$70,000,000. In 1902 the value of Canada's export of eggs was barely \$2,000,000. It rapidly increased until 1910 when eggs had to be imported from Russia and China. During the War years the export again increased. The number in 1916 was 14 million dozen, rising from three million in 1913. It was down to less than two million last year.

The poultry business is suitable to intensive agriculture. Enormous numbers of poultry are raised in China and eggs are exported. Canada gets eggs, especially dried eggs, from that country. Millions of dozens are converted yearly into dried powder by which means one thousand eggs weigh only twenty-two pounds, easily transported and are said to keep indefinitely. Exporting countries find a great market in Great Britain, which imports more than all the rest of the world combined.

While meat is a great muscle-making food it is not so important as our appetites make us believe, because it is partly a food and partly a stimulant. We do not need the bacon with the eggs but it makes them taste fine, and we cannot forget that 97 per cent of the edible portion of the egg is digestible, which is unusually high.

The farm egg industry brings more returns financially than the fishing industry, and there is poultry meat in addition.

The foregoing figures come from the Agricultural Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 281. - Thursday, July 8, 1937 -- Irishmen Going Back Home

The elections in the Irish Free State and the plebiscite regarding the constitution have focussed our attention upon that country during the last few days and it may be at least topical and probably illuminating to give some figures relative to the emigration and immigration that have been taking place in recent years.

Irish people used to come to Canada in thousands; indeed, at one time they were the leading racial group in the great Province of Ontario. As late as 1924, over five thousand left the Irish Free State for this Dominion, but in the last five years the total was only 377, or an average of 75 a year.

On the other hand Irish people returning from Canada to the Old Land years ago were comparatively few, but today it is different. During these last five years 960 have gone back home, so that the Irish Free State has gained from us a net balance of 583 persons.

Eleven and twelve years ago, over 26,000 people were migrating to the United States from the Irish Free State but in the last five years the total has been only 1,845 while in that same time 7,871 have returned, leaving a net loss to the United States of over six thousand persons.

Turn to Australia. Australia has always been a favourite country with Irish people. In the last five years, despite the long and expensive journey to the Antipodes, over one thousand have gone there and only seven hundred returned home, leaving a net balance of exactly 300 in favour of Australia.

These figures are taken from an official Irish Free State publication received by the Dominion Bureau of Statistics.

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No. 282. - Friday, July 9, 1937 -- The Marmot

The marmot is a member of the squirrel family but because of its heavy body is much less active than most of its other relatives. The true marmot is a native of the higher Alps and Pyrenees. Those living in Canada and the north-eastern United States are thickset and are commonly called ground hogs or woodchucks. Those found along the Pacific Coast are grizzled gray and buff hoary and those of the eastern sections are reddish-brown.

Marmots are animals of open glades and hillsides rather than the thick bush. They make large burrows, usually having several openings towards one of which the animal rushes when alarmed. These burrows are a nuisance to the farmers in their field work and the marmots are persistently trapped and hunted.

In the fall the animals become very fat and when winter sets in hibernate. A spell of warm weather in early spring will revive a few of them and out they come to prowl about. But as soon as the temperature drops they scamper back for more sleep. This habit is responsible for the myth of "Ground Hog Day", February 2.

The skin of the Canadian marmot is of little commercial value because it is rather thin and coarse, although the pelts of the western animals are better. The class of marmot skins suitable for coats come from Asia, Northern Europe and China. In 1934 there were 21,000 skins treated in the Fur Dressing Industry of Canada, but



the following year showed a great decrease. Its popularity in the making of fur coats is increasing as shown by the 12,000 pelts used last year, according to the Fur Statistics Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 283. - Saturday, July 10, 1937 - Limestone

Limestone is a general term to indicate rocks composed of carbonate of lime. They may vary in colour from white to nearly black. Most of the limestones are of marine origin and consist of the different types of marine life, particularly various types of corals and mollusks. The purity of it depends largely upon the nature of the ocean bed. Muddy bottoms where such organisms as clams live, result in rock which will be of a shaley nature, but where shells are mingled with sand, the rock will be more like sandstone. The purest form comes from where corals or oysters have fastened themselves to a rock bottom. Many limestones result from particles of dust falling into water charged with carbonate of lime.

When subjected to heat and pressure, limestone undergoes a recrystallization and all traces of the original organisms are lost. In this way we get the rock that is known as marble.

There is a growing demand for finely pulverized limestone for use as a mineral filler in the manufacture of rubber, linoleum, oilcloth and putty. Finely crushed limestone is continually coming into more extensive use as a filler in chemical fertilizers, replacing inert fillers such as sand. A new use for it is in the manufacture of rock wool for heat and sound insulation.

According to the Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce, the sales of limestone produced in Canadian quarries last year amounted to four million tons, an increase of 179,000 tons over the year before. This does not include the limestone consumed in the cement industry nor the 800,000 tons that were burnt in the manufacture of lime.

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No. 284. - Sunday, July 11, 1937 - Rubies

The Ruby is the birthstone of July. That is the name given to the "gem of gems" by the Hindus, who prize it above all other precious stones. It is said to bring to its wearer health, wealth, wisdom and happiness, and is the emblem of true love. It is also said that the man who possesses a flawless ruby may dwell without fear in the midst of his enemies.

Sir John Mandeville, in the fourteenth century, writing a treatise on gems, assures the fortunate owner of a brilliant ruby that he will live in peace and concord with all men, that neither his rank nor his land will be taken from him, and that he will be preserved from all perils.

The Lord commanded the ruby to be placed on Aaron's neck and Solomon said: "Who can find a virtuous woman, for her price is far above rubies?" In another passage he declares that wisdom and understanding are "more precious than rubies".

The ruby is a red variety of the species Corundum. All other varieties of this species, including the blue, are known as sapphires. Only a fraction of one per cent

that are mined today are of gem quality. It is rare to find one of over one and a half to two carats free from imperfections. A clear, transparent, flawless ruby is the rarest and highest priced of all gems. The greatest supply comes from Burma, Siam and Ceylon. A few have been found in Australia, Madagascar and North Carolina.

Not very many of the rarer rubies come to Canada as commercial imports but there are in the possession of families many fine specimens that have been handed down from generation to generation. Imports are valued around \$10,000, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 285. - Monday, July 12, 1937 - Bauxite for Aluminium

The word "aluminium" or "aluminum" can be traced back to "alumen" of Ancient Rome but the metal aluminium was discovered just about one hundred years ago. Only since 1910 has there been a wide and increasing use of it.

Although not found free in nature, aluminium is the most abundant metallic element. It is found with mica, slate, corundum, feldspar, cryolite, clay and bauxite. At present the entire output of aluminium is obtained from bauxite of certain specifications. This ore is a mixture of minerals, but does not occur in Canada.

The metal is obtained by the electrolysis of bauxite concentrates and cryolite. When the molten aluminium sinks to the bottom of the pots, it is drawn off every day or two through a tap hole and cast into pigs or ingots.

Europe and North America are the only continents having aluminium production. The United States leads all other countries by a wide margin. Canada's capacity to produce it is large but the consumption is very small, and the export market takes care of the surplus.

France is the leading country in the production of bauxite. The State of Arkansas is the great producing State in the United States. Other important producers are Dutch Guiana and British Guiana in South America and Hungary, Italy and Yugoslavia in Europe.

Most of the bauxite used to produce aluminium in Canada comes from the United States and British Guiana. Over three million hundredweight of this ore was imported last year, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 286. - Tuesday, July 13, 1937 - Oil Cake and Meal

Every farmer, and lots of other people, know something about the oil cake that is fed to cattle, but not very many are acquainted with the process of making oil cakes and extracted meals.

There are three processes of removing oil from seeds and nut meats. One is by direct pressure, frequently hydraulic, by which the oil is squeezed out and the residue compressed into a hard, dense cake or slab, which usually retains oil to the extent of five or ten per cent.



Another is by the expeller or screw process, which is continuous and produces a residue of highly compressed meal in pieces of a size suitable for feeding purposes and of one to two per cent less oil than the direct pressed residue. In either case, the removal of the husk, if desired, is a preliminary process.

The third process is the extraction by solvents such as gasoline, benzine, alcohol, carbon bisulphide, etc. This is effected by dissolving out the oil and distilling off the solvent. The residue, after being cleaned and dried, is sold as an extracted meal which contains much less oil than do the residues of either of the other processes and is considered to have a slightly poorer feeding value. Extracted meals should not be confused with ground meals.

Of late years there has been a largely increased importation of oil cake and meal, principally soya bean and palm nut, while cotton seed has been decreasing. Last year the soya bean oil cake and meal imports were 138,000 hundredweight, palm nut 35,000 and cotton seed 32,000. There are only two firms manufacturing these products in Canada, according to the General Manufactures Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 287. - Wednesday, July 14, 1937 -- Pork-Eating Canadians

As consumers of meat, it was a surprise to find two or three years ago that the Canadian people had swung from pork to beef. In 1933 the per capita consumption of pork was 75 pounds and of beef 55 pounds. In 1934, however, the consumption of beef was 69 pounds and of pork 66. Beef was again the leader in 1935, but last year the consumption of pork was once more in the lead with 68 pounds to 60 per capita. There are more than twice as many cattle on Canadian farms as swine.

The Canadian people eat far more poultry than mutton. The consumption of poultry was 18 pounds per capita last year, while that of mutton and lamb was only six pounds. Canadians are amongst the smallest mutton consuming people in the world.

It might be said that chicken is the favourite meat dish and that, except around Christmas, comparatively little turkey, duck or goose is to be found on the dinner table. There are more geese than ducks on Canadian farms but more turkeys than the two of these combined, the number of turkeys being over two million. There are 56 million hens and chickens busy around the barn-yard, according to the Agricultural Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 288. - Thursday, July 15, 1937 -- The Japanese Beetle

The Japanese Beetle for the past twenty years has been doing enormous damage to fruit crops and a wide variety of vegetation in the Eastern United States, and the Dominion Department of Agriculture is endeavouring to determine whether this destructive insect has invaded Canada.

The Department is now carrying on trapping operations at several points in Ontario near the international boundary. The beetles are fond of bright sunlight with a background of perennial borders or shrubbery and, therefore, it is necessary to seek the cooperation of owners of gardens and private property in order to locate the traps properly. These traps will be visited regularly by an inspector of the

Entomological Branch to see that they are functioning properly and to determine whether any beetles have been caught. As little inconvenience as possible will be caused the occupant of the property, but a real service to the community will be rendered by such owners.

The Japanese Beetle is strongly attracted by the odours of geranoil and erigenol, two essential oils used in perfumery and the beetles are lured into the traps by means of these.

The beetle is a beautiful and brightly coloured insect of about half an inch in length. It is a bright metallic green except for the greater part of the wing covers which are coppery brown. There are five white spots on either side of, and two near the tip of the abdomen.

This information is furnished by the Department of Agriculture with a request for as wide publicity as possible.

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No. 289. - Friday, July 16, 1937 - The Modern Fishing Industry

In Canada today there are 72,000 people who are dependent upon the fishing industry for a livelihood. The capital invested in boats, nets, traps, piers and wharves, freezers, etc., amounts to \$27,000,000.

As for the value of the fish marketed, whether in a fresh, dried, canned or otherwise prepared state, the outlook may be considered promising when the figures of the past are studied.

About the time when the first settlement work on Vancouver Island was being done, the building of Fort Camosun, now Victoria, the production of the fishing industry of Canada was \$125,000. When the Canadian farmer was finding a good market for his produce in the United States during the Civil War in that country, the fishing industry had reached and passed the million dollar mark. Ten years later it was valued at six million dollars. The peak was reached in 1918 when the value was \$60,000,000. By 1932, it had dropped to \$26,000,000 but is now on the upward swing, the 1936 value being \$39,000,000.

According to figures issued by the Fisheries Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce, we find that cod and salmon were for a long time the leading fish. In 1895 salmon definitely took the lead and the high price obtained for lobsters has now forced cod down to third place. British Columbia is credited with 96½ per cent of the salmon marketed last year and the Atlantic coast provinces with the lobster and cod. Nova Scotia was first in cod and Quebec second.

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No. 290. - Saturday, July 17, 1937 - Evaporated Milk

The Great War taught us many things about food; among them is an increased appreciation of milk. In three months of the occupancy of Belgium the number of cows was reduced from 1,800,000 to 700,000. At that point the protests of the Relief Commission halted the slaughter but in Northern France absolutely all the cattle were taken before the Relief Commission arrived.



What was to become of the babies was the problem, and it is safe to say that there was scarcely a child born in the north of France --- which is also true of many in Belgium --- whose continued life was not dependent during all that period upon condensed milk, much of which was sent from Canada. The children got a pitiable ration but it enabled them to survive. It saved millions of lives.

By the processes of condensation and evaporation, along with hermetic sealing, milk can be reduced in bulk and canned so that it will keep for years. It was only as late as in 1900 that the method of evaporating milk completely and reducing it to a powder was discovered. Man is now no longer dependent upon his neighbourhood for his milk supply.

Canadian condensed and evaporated milk goes far abroad, where it is too hot to produce or keep milk, such as Guiana and Equatorial Africa; or too dry as in parts of British South Africa; or too cold as in Greenland; or too mountainous as in some mining districts of British Columbia, or wherever prospectors or travellers wander. Last year the export of evaporated milk alone, seemingly the favourite, was about 70 tons, going to many lands and islands of the sea, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 291. - Sunday, July 18, 1937 --- The Locust Bean

Most Canadian youngsters experience some difficulty in understanding the statement in Scripture that John the Baptist lived on locusts and wild honey. Instinctively the Canadian youth thinks of those clouds of insect pests that land in a district of the West and wipe out vegetation bare to the ground, even clutter up the rails so that a giant locomotive cannot grip the steel and is stalled. The wonder is not lessened by his knowledge that one of the seven plagues visited upon Egypt was locusts.

Youngsters on the other side of the Atlantic, however, have no such difficulty. In many countries the locust to them is instinctively the locust bean. With the smallest of coins, such as our one-cent piece, they can purchase quite a handful of the dried locust beans. To them it is a sweetmeat, as highly prized as a stick of gum to a young Canadian. The beans are dried in the pod and the whole thing, pod and all, is chewed with immense relish. The beans are small; the pod, which is the chief delight, being long, broad and flat and dark brown in colour. John the Baptist had really a rich, sustaining dish and, with honey added to it, a sustenance that makes for muscular strength and stamina far more than most of the foods that are our favourites in Canada today.

Locust beans are not grown in Canada but we are importing about 200,000 pounds yearly of beans and bean meal, chiefly from Greece and other Mediterranean countries and from the United States, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 292. - Monday, July 19, 1937 --- Helium from Natural Gas

The commercial production of helium during the later stage of the war, a substance that in 1916 was almost a scientific curiosity and of which only a few cubic feet were in existence in the laboratories in Europe, is one of the many recent spectacular achievements of scientists.

Helium is a light non-inflammable gas which is a most valuable substitute for hydrogen for the inflation of the gas bags of airships. The inflammability of hydrogen and the explosive nature of its mixture with air was the cause of the destruction of such airships as the British R 34 and the United States Z R 2. Helium eliminates this danger. Other uses are being found in experiments in the phenomenon of radio activity, in mitigating caisson disease in deep-sea diving and in the treatment of respiratory troubles such as asthma.

In 1915 the Board of Invention and Research of London, England, investigated the source of supply of helium within the British Empire. Canada was found to have the largest. Two years later successful experiments with natural gas at Hamilton, Ontario, warranted the erection of an experimental station at Calgary, Alberta. From the natural gas obtained in the districts in which these cities are located, it is estimated that 10 to 12 million cubic feet of helium could be produced yearly. However, very little, if any, is now being made in Canada.

Natural gas found in the areas mentioned before, contain about .35 per cent helium. The production of natural gas in Canada last year was 27 million thousand cubic feet. Should aviation expand in the future to the use of airships, it looks as though helium might become another valuable asset to Canada and to the world in general.

This information comes from the Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 293. - Tuesday, July 20, 1937 - Beeswax

Unrefined beeswax is used in the manufacture of furniture and floor polishes, preparations for dressing and waterproofing leather goods such as boots and harness, and for grafting, sealing and sewing waxes. In the refined form, it is used in the composition of many cosmetics and ointments, as well as for modelling flowers, fruits and anatomical exhibits. Refined wax is still used largely for the manufacture of church candles and since 1907 the percentage of beeswax in each church candle must be stamped upon the butt.

Observations within the British Empire have brought to light an interesting fact - countries which provide large quantities of honey furnish little or no beeswax. Empire sources of beeswax are mainly tropical African territories, but Canada is the great honey producer. When bees are domesticated they are supplied with wax foundation for combs and after the cells have been built up and filled with honey, only the wax capping is removed in extracting the honey. In tropical countries the whole comb is taken from the wild bees.

Beeswax is cleaned by melting it in large double-jacketed pans or tanks, similar to the double-boiler. The wax floats to the top and when cooled can be lifted out in a solid block leaving any impurities such as dead bees, honey or water in the bottom of the container. Good beeswax is of an orange or golden-yellow colour and by bleaching it in the sun or with chemicals, can be made snow-white.

Canada's export of honey to the United Kingdom alone increased from 1,543,000 pounds to 2,416,000 in the last year. Increased production increases the use of prepared wax foundation. This may account for part of the increase of \$50,000 in the imports of beeswax last year, most of which came from the United



States, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 294. - Wednesday, July 21, 1937 - Empire Film Library

Canada has responded to the appeal to the Dominion and Colonial Governments to make good the shortage of films in the Empire Film Library at the Imperial Institute by presenting 68 copies of twelve different films dealing with life in the Dominion.

The Director of the Imperial Institute drew attention last August to the fact that over 1,000 films already in the Library cannot meet anything like the full demands being made from 2,500 colleges, schools, institutes and a variety of social organizations. Last year the issues of Empire films totalled 17,000 and audiences must have reached the stupendous total of 3½ million persons.

The Canadian Government Motion Picture Bureau which was organized some fifteen years ago, had close to six thousand films of Canadian interest in active circulation last year. There is a rapidly increasing use of these educational films by churches, community, fraternal and other organizations particularly in Canada, the British Isles, New Zealand, the United States and the Orient. There were 96 Canadian films shown in Germany, 70 in Italy and 53 in the West Indies.

As yet the use of educational films in Canadian schools and colleges is in its infancy. However, in a short time a report on the subject will be issued by the Educational Branch of the Dominion Bureau of Statistics.

At the present time the motion picture producers are also making use of educational material on their programmes and according to the Internal Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce, there were 117 million admissions to theatres in 1935.

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No. 295. - Thursday, July 22, 1937 - Canadian Exhibits Abroad

The organization of Canadian exhibits abroad originated in the Department of Agriculture, was later taken over by the Department of Immigration and Colonization but is now part of the Department of Trade and Commerce. The Exhibition Commission has its headquarters in London, England, and has a liaison officer in Ottawa.

The primary purpose is to assist Canadian manufacturers to demonstrate their products under the most favourable conditions and to direct attention to the Dominion as a land of opportunity.

Canadian sections were organized in seventeen exhibitions last year. In London during the British Industries Fair held in February, the Canadian section accommodated 28 individual exhibitors representing 44 firms. At the same time in Birmingham, 12 Canadian industrial undertakings were shown as well as a large display of economic minerals and export timbers. A second exhibition at Birmingham in October dealt chiefly with timber and minerals associated with the building trade.

In France, the Canadian section displayed timber, minerals, fresh apples, grain and flour. An illuminated map showed Canada's national parks. For the first time a Canadian section was organized in the Royal Netherlands Industries Fair and 18

individual exhibitors represented 29 Canadian industries. A large Government display, including timber, minerals, casts of Canadian fish and a thirty-foot panoramic map of the Dominion, was prepared and shipped to the Centennial Exhibition at Adelaide, Australia. The rest of the exhibits were in the British Isles.

According to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce, the export of living animals for exhibition purposes last year was valued at \$207,000 and the import at \$150,000.

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No. 296. - Friday, July 23, 1937-- Marketing of Precious Metals

Prior to 1908, although measures were in existence in several countries which required all gold and silver articles to be of a certain fineness before receiving the mark of approval of the country in which they were made, Canada was being flooded with inferior goods having all the appearance of the genuine articles and with marks of quality that were calculated to deceive the purchaser. With the object of protecting the public, the dealer and the manufacturer, a standard for platinum, gold and silver, as well as articles made from these metals, has been established.

An important requirement of the Precious Metal Marketing Act is that if an article is stamped with a mark of quality, then it must also be stamped with a registered trade mark. This necessitated going carefully through 63,000 trade marks and making a drawing of each mark registered for articles of precious metals, with full details of application.

Administration is effected mainly through an inspector whose duty it is to inspect the stocks of manufacturing plants, retail and departmental stores. Constant checking of all advertisements in the daily papers throughout Canada for the misuse of words and improper descriptions of articles of precious metals, formerly prevalent, has greatly decreased the deception.

Canada's production of these metals amounted to \$147,000,000 last year. About four million dollars worth was imported and over \$85,000,000 worth exported, according to the Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 297. - Saturday, July 24, 1937 -- Ghee or Clarified Butter

To the average European who has lived in India, "ghee" conjures up a picture of dirty, oily fat with an offensive rancid smell. It is a solid form of milk fat free from water, proteins and salts. Milk from cows and water-buffaloes is used chiefly, occasionally that from sheep and goats. The term "ghee" is now restricted to the native product and "clarified butter" to that made under Government supervision.

Because of the lack of storage facilities such as we in Canada possess, the inhabitants of semi-arid regions were forced to evolve a method of keeping dairy products. For centuries, the people of India and like countries have used a rather unsanitary method of storing butter fat. The milk was put into a large earthen or brass jar and inoculated with a starter of sour milk. When it curdled, it was diluted with warm water and churned with bamboo sticks until butter formed. The granules of butter were skimmed off and allowed to drain. During this period much



rancidity developed. The butter was again heated and cooled to allow the proteins to settle. The liquid fat was stored away in containers.

Under European supervision the natives are being taught to use the separator and churn. However, old customs are difficult to break. Natives who are supplied with sterilized milk cans into which they are to milk, prefer to use the native gourd and then pour the milk into the clean can, thus defeating attempts to promote sanitary methods. Nevertheless, progress is being made under supervision in the creameries where sterilizing equipment is installed.

Fortunately, Canadians can depend upon butter placed in cold storages. In addition to the large quantities which were held in creameries, Canadian creamery butter in cold storage plants in the Dominion on July 1 this year totalled 16,800,000 pounds, according to the Agricultural Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 298. - Sunday, July 25, 1937 - Our Western People

Eyes are focussed more or less upon the Prairie Provinces at this time because of the drought conditions which are seriously affecting economic conditions. Data collected during the quinquennial census last summer have brought to light many important features.

In all three provinces, the proportion of urban population has declined due to the effect of the agricultural depression upon the commerce and industry of urban communities, while the rural population has increased in spite of the conditions of hardship and privation. A pronounced movement of rural population has been from southern Saskatchewan to the northern part and into northern Alberta. Alberta has shown the greatest population increase.

Although there is still an excess of males over females in the three provinces, the proportions between the sexes have been brought more nearly to a balance. In Manitoba and Saskatchewan, the increase in population in the five year period has been accounted for by the increase of females; in Saskatchewan there was an actual decrease of males. Decreases in male population were found to be chiefly among the single men. The married population increased in all three provinces.

There has been a decline in the population of British races in the last five years in Manitoba and Saskatchewan, and a slight increase in Alberta. People of French origin have slightly decreased in Saskatchewan but have increased in the other two. Marked increases have taken place in the number of Germans and Ukrainians. These, however, should be interpreted with reserve as there has been a great deal of confusion in the reporting of the Teutonic and Slavic races in the period since the War.

This information comes from the Census Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 299. - Monday, July 26, 1937 - Veterinary Science

Veterinary science, although confined chiefly to the health of animals, indirectly protects human beings against such communicable diseases as tuberculosis. But it was not until the 18th century that it was studied systematically.

According to the census of 1931, there were 1,046 veterinaries in Canada. The Dominion has only two colleges offering degrees in this science, one in Quebec and one in Ontario. The number of graduates annually is now around 50; about one-third of them are from the United States.

It is interesting to note that there is no veterinary college in the Western or Maritime Provinces, although these provinces possess over two-thirds of the horses and nearly half of the cattle in the country -- the two kinds of livestock which take up the greatest amount of the veterinarians' time.

About 30 per cent of the Dominion veterinaries are to be found in the large cities, a number of them being attached to Departments of Agriculture and serving a province wide area.

There are fewer veterinaries in Canada now than 25 years ago. The average age of those now practising is about 50. This is further evidence that the supply is not being maintained. Those under 25 years of age numbered 12 and there were 164 over the age of 65.

This information comes from the Educational Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 300. - Tuesday, July 27, 1937 - Limes

The lime belongs to the citrous fruits and is cultivated similarly to the lemon and orange. The trees seldom exceed eight feet in height and can be grown in poorer and more exposed, though not colder, situations than either lemons or oranges. The leaves are heart shaped and the yellowish or greenish flowers are sweet-scented. The fruit is green or yellow and smaller than the lemon.

There are two species of limes which grow in England. Lyne, linde and linden are other old English forms of the name. The wood is used for cabinet work, musical instruments and carving. The masterpieces of Grinling Gibbons, the famous English carver and sculptor, were wrought in wood of the lime tree. Some of his outstanding work was done on the choir stalls of St. Paul's and in Windsor Castle.

Attempts are being made to popularise fresh limes on the tropical fruit market. The delicate skin is very subject to mechanical injury and liable to wastage through shrivelling but with care they can be shipped without losing their bright, shiny and attractive appearance. Because they undergo little colour change during cold storage, fruits for particular markets may be picked at approximately the required state.

The Island of Dominica supplied the greatest number of limes a few years ago. Now St. Lucia has taken the lead. Montserrat, Trinidad and Grenada are also producers. Most of the 13,000 boxes of fresh limes imported into Canada last year, came from the British West Indies. According to figures supplied by the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce, the imports are about four times greater than they were five years ago.

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No. 301. - Wednesday, July 28, 1937 -- Central Electric Stations

Hydro-electric power has made possible economic developments which coal and steam could scarcely have supported and it has hastened the spread of industrialism in Canada. Central electric stations had a total output of over 25 billion kilowatt hours in 1936. It is estimated that the actual work done by water power in 1936 would have required the consumption of close to 16 billion tons of coal if done by thermal engines.

Pulp and paper and mining concerns purchase the major proportion of the output of these stations. Well over one-third of the production was absorbed by pulp and paper mills alone. Both these industries use a large proportion of the purchased electricity for heat and electrolytic processes.

The manufacturing industries use a large amount of electricity. The energy supplied by the central electric stations drives about 83 per cent of the electric motors and 65 per cent of all the power equipment used; these ratios having increased from 73 and 45 per cent respectively during the past decade. By the way, the total value of capital invested in central electric stations is greater than in any other manufacturing industry and the volume of their business puts them in the forefront of Canadian manufacturing industries.

While commercial and street lighting, and household services which central electric stations supply, play subordinate roles as far as the amount of current used is concerned, the cheap provision of these services has been immensely important in improving living conditions in the rural as well as urban communities. The domestic consumption last year was about two billion kilowatt hours.

This information comes from the Public Utilities Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 302. - Thursday, July 29, 1937 -- A New Use for Yellow Cedar

Experiments in the Ottawa laboratories of the National Research Council have proven that yellow cedar is equally as satisfactory for plate separators in storage batteries, if not more so, than the Port Orford, Oregon, cedar which has been used almost entirely heretofore. This discovery should develop into a wide market for the British Columbia wood as the number of storage batteries sold last year at factory prices, was worth over three million dollars and is increasing.

Yellow cedar is sometimes referred to as yellow cypress, Alaskan cypress or Alaska cedar. In Canada it is found only on the Pacific Coast from Alaska to the southern boundary of British Columbia on the west slope of the Coast range, and on the adjacent islands. Although not as large as the Western red cedar, it generally reaches the height of 80 feet and measures from 2 to 3 feet in diameter.

The wood itself is of a pale yellow colour and when freshly cut has a very strong rank odour which often gives it the name of "Stinkwood". This smell practically disappears in seasoning. It is fairly hard and strong, with low shrinkage factors and high durability against decay. Its resistance to acids is its most valuable property in the making of battery separators. The cut in 1934 was 40,000 board feet but increased to 100,000 the following year.

According to the Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce, the money spent on battery separators of wood in 1935 amounted to \$154,000, an increase of nearly \$12,000 over the year before.

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No. 303. - Friday, July 30, 1937 - Vocational Training

This year the Dominion Government is encouraging a programme, in cooperation with the provincial governments, for the establishment of unemployed youth. A sum of one million dollars was voted for the specific purpose of developing training projects within the various provinces. Plans have already been approved in the four Western Provinces.

The greatest dearth of skilled labour seems to lie in the building trades. Before the War, the Old Country was the source of supply of skilled workmen. There the well-established system of apprenticeship in the building trades produced excellent mechanics. Due to the War, the supply of skilled labour was cut off. Furthermore, many a young man migrated to the United States during the building boom. A survey of the principal cities of Canada revealed a disturbing shortage and an almost total absence of apprentices. In the last few years, Ontario, British Columbia and Nova Scotia have passed Apprenticeship Acts, designed to bring about the systematic entry of young men into these trades.

The motor vehicle repair and the barbering and hair dressing trades have also been under the Apprentice Act in Ontario since last year. A new feature requested by these trades is that certificates of qualification be issued to all mechanics and operators.

To make such a scheme entirely successful, vocational guidance must begin with the later years of public school and continue through high school and technical schools so that when a boy or girl is handed to an employer for practical training, there will be close cooperation between school, parent, employer and government.

The enrolment of full-time day students in vocational schools in Canada is about 65,000 and evening students 57,000, according to the Educational Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 304. - Saturday, July 31, 1937 - Glassware

It has been stated that in the Vatican Studios in Rome, where glass mosaics are made, as many as fifty thousand tones in glass are available. An enormous variety of shade and intensity of colour is obtainable by variations in the materials used. The final colour is affected, not only by the colouring agent used but also by the type of glass and by the treatment to which it is subjected. Reheating of the glass after removal from the melting furnace is often essential.

Red glass was originally produced by the use of copper compounds. The glass when first removed from the furnace is amber and develops a red colour upon reheating. When gold compounds and selenium are used, they act in a similar manner. Selenium red glass has the advantage that the colour remains uniform with varying thickness of the glass and the amount of light transmitted is high. Consequently selenium glasses are useful for traffic lights.



Amber glass is produced by the use of charcoal, usually with sulphur or sulphur compounds. Yellows are made with various foundation glass mixtures by the use of silver or uranium compounds; the silver compounds giving a true canary yellow and the uranium salts a slight greenish tinge.

Green shades are produced from iron compounds; deep olive green from chromium. Cobalt compounds give deep rich blues and manganese dioxide produces amethyst colours. Purple can be obtained by the use of gold.

As a rule, so-called black glasses are not truly black, as in front of an intense light they appear purple. Black glass is produced when a sufficiently large quantity of a substance like manganese or cobalt is used.

Coloured glass is used extensively in tableware of which we imported close to \$1,000,000 last year. Most of it came from the United States and Czechoslovakia, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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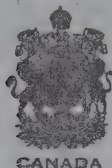




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DEPARTMENT OF  
TRADE AND COMMERCE



CANADA

**A FACT A DAY ABOUT CANADA**

FROM THE

**DOMINION BUREAU OF STATISTICS**

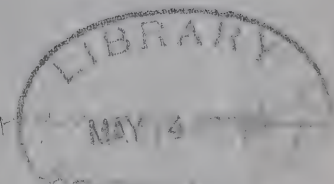
AS SUPPLIED TO THE

**CANADIAN BROADCASTING CORPORATION**

**DURING AUGUST 1937.**

**THIRD SERIES**

*Published monthly in ~~English~~ form. Contains such news as is of interest to the country of ~~Canada~~ Canada.*



Published by Authority of the HON. W. D. EULER, M.P.,  
Minister of Trade and Commerce.

Price 25 cents per annum



## Contents

305.	The Rough-legged Hawk.	321.	Doctoring the Canadians.
306.	Wattle Bark.	322.	More Pig Wanted.
307.	Historic Sites and Monuments.	323.	Canada's Trade with Tanganyika.
308.	Fruit Growing a Comparatively Young Industry.	324.	Agriculture in Nova Scotia.
309.	Explorers and Investigators.	325.	Canadian Lawyers.
310.	Canadian Manufactures.	326.	Conserving Wild Life.
311.	Microphotography.	327.	Tellurium.
312.	Seaweeds.	328.	Human Skill in Linen.
313.	Phases of Manufacturing.	329.	Canada's Penitentiaries.
314.	Arctic Wild Life.	330.	Linking Canada and United States.
315.	Millions of Roses.	331.	What Vital Statistics Tell Us.
316.	A Canadian Frontier.	332.	Swordfish.
317.	Journalists in Canada.	333.	Theology.
318.	Birds and Insects.	334.	Canada's Trade with Japan.
319.	Agriculture in Prince Edward Island.	335.	Reindeer in the North.
320.	Canada's Trade with Nicaragua.		

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Note: A Fact a Day is broadcast over the Corporation's network immediately after the Canadian Press News broadcast.

James Muir,  
Editor.

A Fact a Day about Canada

from the

Dominion Bureau of Statistics

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No. 305. Sun. Aug. 1, 1937 - The Rough-legged Hawk

It has been learned of Mr. W. V. Shouse, now living at Booker, Texas, that on January 7, 1917, at Clayton, New Mexico, he caught a large hawk and attached to its neck, by means of a sort of leather collar, a bell and a tag bearing his name and address and the date. Then he let the bird go. About 20 years later, in the Spring of 1937, this bird was found dead at Strongfield, Saskatchewan. Proof of the long life of the hawk was substantiated by the return of the collar, bell and tag to Mr. Shouse who positively identified them.

Presumably this bird attained the age of at least 20 years. Its belling and subsequent recovery show how it is possible to accurately record life histories of native wild birds. Mr. Shouse knew because of the bell that the hawk spent the winters of 1918 and 1919 at Clayton, New Mexico, and the bird is reported to have nested in the same tree at Strongfield, Saskatchewan, for the last 4 or 5 years prior to its death.

The bird was a Ferruginous (pronounced fe-rooj-in-us) Rough-legged Hawk, one of the largest hawks. This and some other kinds of hawks should be welcomed around farm and wheat field in Western Canada because they do much good in keeping down the number of gophers and grasshoppers which do so much damage to the crops.

The modern method of recording the travels and private lives of native wild birds, which are of great economic importance, is by means of official numbered metal leg bands. Any person in Canada who finds a wild bird wearing a leg band should report the facts to the Controller, National Parks Bureau, Ottawa, who has custody of the Official Canadian Bird-Banding Records. The study of wild birds in North America by means of bird banding is being conducted in full co-operation between the Canadian and United States Governments.

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No. 306. Mon. Aug. 2, 1937 - Wattle Bark

Wattle bark is used for tanning leather. The tree is any one of the various acacias found in Australia, Tasmania and South Africa. Of the several species, the Black Wattle of southeastern Australia is the most important. The wood is used for turner's work and fuel, the bark is very rich in tannin and its gum is very much like gum arabic used in medicine. One species, found in western Australia, is called the "raspberry jam" wattle because of its raspberry scented wood which is prized for making charcoal and fence posts.

Wattle Day is the name given to the day, January 26, on which Sydney was founded in 1788. It is kept as an anniversary.

For some years the growers of wattle bark in South America have been greatly concerned about the future of the industry. The increased output of poor quality bark is partly due to many plantations being allowed by neglect to degenerate into the "jungle" state, such plantations yielding at best, thin bark of low tannin content. Other contributory causes are the abandonment by many growers of the



practice of protecting the bark from rain and weather during the drying and storage, and the harvesting of the bark before it has reached maturity.

A report on the leather industry prepared by the Animal Products Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce, states that little bark is now used for tanning. The value amounted to \$87,000 in 1935. Aniline and vegetable dyes and tanning extracts are in greater demand.

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No. 307. Tues. Aug. 3, 1937 · Historic Sites and Monuments

As yesterday was set aside for a civic celebration in some of the cities of the Dominion, it might be well to say something about the Historic Sites and Monuments Board of Canada, an honorary body composed of recognized historians, representative of the various provinces of Canada. The aim of this organization is to mark for future commemoration places of national importance.

Two granite crosses bearing bronze tablets were erected during 1934-35, one at Gaspe, Quebec, to mark the landing of Jacques Cartier, the other at Saint John to commemorate the founding of the Loyalist Province of New Brunswick in 1784.

At Blenheim, Ontario, a cairn with tablet was erected in memory of the treaty made by Alexander McKee in 1790 with the Chippewa, Ottawa, Pottawatomie and Huron Indians, whereby a great tract of land, comprising most of the present counties of Essex, Kent and Elgin and part of Middlesex, was peacefully acquired to provide homes for expatriated United Empire Loyalists.

A few years ago, a cairn was erected at Port Morien, Nova Scotia, to mark the site where the first regular coal mines were established by the French in 1720. A similar cairn at Lethbridge was erected for the first coal mine in Alberta in 1872.

Numerous Indian treaties have been called to remembrance throughout the Western Provinces by this Board. Indian Treaty Number One in 1871 at Fort Garry is marked by a tablet on the outer stone wall of Lower Fort Garry.

At Point Grey, British Columbia, a cut-stone monument marks the spot where the British and the last Spanish explorers established mutual friendship and continued their explorations together.

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No. 308. Wed. Aug. 4, 1937 · Fruit Growing a Comparatively Young Industry

In certain sections of Canada, the climate and soil are eminently adapted to fruit growing, and the Annapolis Valley, the Niagara Peninsula and the Okanagan district are world famous centres of fruit production.

Experimental shipments of apples from the Annapolis Valley were first made in 1861, but up to 1890 the annual production of apples by Nova Scotia rarely exceeded 100,000 barrels. After that there was a pronounced increase in acreage and production until two million barrels were harvested in 1919. Last year one and a half million barrels were produced.

In Ontario, where the commercial production of all varieties of fruit has reached its highest development, apples have been grown for about two centuries, but

commercial orcharding has developed only during the last sixty years. The building of railways made the industry possible.

In British Columbia, commercial fruit growing is of comparatively recent origin, growth in production having been particularly rapid since 1910. From 1891 to 1921 the acreage expanded from 6,000 to 43,000 acres.

Last year the farm value of Canadian fruit production was over \$18,000,000. Half of that was due to apples, with strawberries second at almost \$2,000,000, raspberries third at over \$1,000,000, according to the Agricultural Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 309. Thurs. Aug. 5, 1937 Explorers and Investigators

An English clergyman, at the funeral service over the remains of Henry Edward Armstrong, the great research scientist, on July 16 last, spoke these remarkable words regarding the men of the laboratories:

"Not always, maybe, when we are all amazement at the exploits of aviators who won the poles in non stop flight; or honour the memory of a Columbus, a Cook, a Cortez or Vasco de Gama, explorers of the earth's surface, of the men who added continents to our use and whole seas to our purview. Not always do we remember that they too are explorers, investigators, blazing an untrodden path, who in the patient toil of their laboratories have ransacked the atom and touched to the source the properties of naphtha.

"The chemical universe is as full of mysteries awaiting illumination for our benefit as was ever a world -- 400 years back only -- which knew nothing of America, Australia, South Africa. Into such a silent sea of mystery and untellable wealth burst; the pioneers, the searchers who delved and analysed, peering into the unknown universe hidden in the veins of rudest clay and crudest gas. And it is they, magicians of the occult, who in a century have added more to knowledge and power than 4,000 previous years had done."

There has been a definite swing to scientific studies in Canadian universities during recent years. Bachelors of Arts have increased to be sure, -- the annual number has nearly doubled in ten years -- but Bachelors of Science have trebled. One in five or six is a girl -- an aspiring Madame Curie. The seriousness of the quest for knowledge of the science graduates is shown by the fact that nearly half of them follow post graduate studies. About 140 Master of Science degrees are awarded in a year, according to the Education Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 310. Fri. Aug. 6, 1937 - Canadian Manufactures

Manufactures employ more people than any other class of industry in Canada and, if the ramifications were followed out to the end, the effect would be to discover that there is scarcely an activity, probably none, that is not dependent to some extent upon what the manufacturer has to offer.

Two great influences caused the great forward movement of Canadian manufactures during the present century. First there was the boom which accompanied the opening



up of the West, which greatly increased the demand for manufactured goods of all kinds, and especially construction materials; second, there was the War, which not only created enormous new demands but left a permanent imprint upon the variety and efficiency of Canadian plants.

In 1910, when the first of these influences was but partly felt, the gross value of Canadian manufacturing production had risen to \$1,166,000,000 and the number of employees to 515,000. Only ten years later, in 1920, the production value was \$3,772,000,000 and the employees to about 610,000. In 1929 the peak of production was reached at \$4,029,000,000 and employees 694,000.

Then the depression came along and the production value dropped to just about half. Improvement is being recorded and by 1935 production had worked back to almost \$3,000,000,000 with employees at 583,000. The 1936 figures are not yet available at the Dominion Bureau of Statistics, but the expectation is that they will show still further gains.

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No. 311. Sat. Aug. 7, 1937 - Microphotography

Keen interest has been aroused in a comparatively recently developed phase of photography called microphotography. It is the filming of books and other printed matter in such a way that a newspaper page can be reduced to the size of a postage stamp and projectible upon a screen in a size to be read with even greater ease than the original. It should not be confused with photomicrography which is the making of enlarged pictures of small objects.

Although not hitherto put to a considerable use, the science of microphotography has been workable for nearly seventy years. It was used in 1870 for the pigeon post out of Paris during the siege in the Franco-Prussian War.

It has several great uses; the saving of great storage space for records, and the preservation of perishable material such as newspaper files, old books or manuscripts. It renders available rare and expensive material and, because of this, the possibility of acquiring, at little expense, reference material for permanent use when the original would cost much more to borrow, even if it could be borrowed.

Microphotographic cameras have been installed at various places, including the British Museum in London and the Bibliotheque Nationale in Paris, for the purpose of making copies of all books issued prior to 1550. These books, hitherto only available to the most privileged research workers, who were allowed to consult them at the library to which they belonged, may soon be available to any student in any part of the world.

The films which are inexpensive and no more inflammable than paper have already been used extensively by several branches of the Government Service. It is evident that this method of solving storage problems will be developed and generally adopted in a few years.

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No. 312. Sun. Aug. 8, 1937 - Seaweeds

How fortunate are those who dwell by the sea, or those inlanders who in these beautiful Summer days have been given the opportunity of visiting the sea-girt country. They may get a sight of the seaweeds, those enchanting flowers which at low tide lie stranded upon the shore. They bring one's thoughts close to the Creator of the good and beautiful.

The seaweeds are of different colours, shapes and sizes and the botanical authorities of the Department of Agriculture describe them well. Some adhere closely and firmly to the rocks and remind one of ferns. Others are ribbon-like in their growth and wavy on their margins. Another kind bears upon it little ballons or bladders which, when pressed, pop with quite a loud report.

The ribbon-like kinds are sometimes hung up at home and used as a barometer. At the approach of rain they become wet and limp and dry again when fine dry weather returns. These primitive but reliable barometers will sometimes last for years.

Growing beyond reach of the tide, in the dunes and sandy waste lands behind the beach are sturdy clumps of the beach pea, with its showy sprays of purple butterfly-shaped flowers, soon to be followed by pods swollen with large peas. They look tempting but are bitter. It is said, however, that some people on the East coast of England supported themselves to great extent with these peas during a famine.

Further back from the beach will be seen the ragged but silky white and brown tassels of the cotton grass, while peeping out from the shorter herbage, that dainty flower, like a wavy anemone, the Grass of Parnassus cannot fail to arrest attention and arouse admiration.

For this and other botanical wonders of poetry, grace and beauty, one may well leave the beaten trail and spend an hour or two in quiet communion and return to civilization invigorated and comforted.

No. 313. Mon. Aug. 9, 1937 - Phases of Manufacturing

From time to time there have been references in these broadcasts to manufacturing, such as the statment that Central Electric Stations have the highest capitalization and that the pulp and paper industry pays out most money in wages. This invites some interesting comparisons, based upon the 1935 statistics which are now complete.

It is true that Central Electric Stations have the highest capitalization at one billion and a half, whereas the pulp and paper industry is capitalized at \$546,000,000, but the electric stations employ only 15,000 people and the pulp and paper firms employ 28,000.

The non-ferrous metal smelting and refining companies have the highest gross production value of all industries at \$186,000,000, but the reason for that is the high cost of materials. At \$127,000,000 they pay more for their materials than any other but they employ only 9,000 people.

Slaughtering and meat packing has a high production value of \$133,000,000 but, like the metals, the materials are high in cost at \$108,000,000 and the second highest in the whole range of industry.



The Central Electric Stations pay high wages, the average income of the employees being \$1,456, followed by automobile workers at \$1,435, and the smelters and refiners \$1,418. The average income of the pulp and paper workers was \$1,289, slaughterers and meat packers \$1,166, automobile supply workers \$1,120 and Women's Clothing Factory Workers \$815.

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No. 314. Tues. Aug. 10, 1937 - Arctic Wild Life

When hot summer days and nights are grilling us and our thoughts turn kindly to the Canadian Arctic, we are reminded that at only one place in this Dominion is there an opportunity of seeing a collection of the most important species of the wild life of the far north as well as other regions, of course. That is the Quebec Provincial Zoo, located at historic Charlesbourg, seven miles from Quebec City. Built with funds from the Provincial Legislature and a grant from the Dominion Government, the Quebec Zoological Gardens were opened to the public only six years ago.

The Zoo proper occupies 30 of a site of 75 acres which has been described by a German authority as the finest of its kind in the world. There are one thousand wild creatures there, one or more of almost every animal, bird or fish in Canada -- from polar bears to porcupines, pelicans to cormorants, salmon to snakes. A small lake and the tumbling LeBerger River accommodate the aquatic residents. The polar bears and cubs were the gift of the Hudson's Bay Company.

There are to be seen the rare Snow Goose, horned owl, bald-headed eagle, wild turkey, coyotes and wolves, looking like police dogs, cougars, black bears, foxes, wild cats, skunks and weasels, the dreaded wolverines, one of which has lost an eye in battle. The little known Arctic Otter may be seen. There are mountain goats, sheep and elk, which graze in company with a family of Bison. Truly Quebec has provided a wonderful educational gift for the Dominion and its visiting friends.

When finished the Botanical Tree Garden will contain groves and rows of Canadian trees and shrubs of every variety.

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No. 315. Wed. Aug. 11, 1937 - Millions of Roses

Everybody who knows anything about flowers is familiar with the tulip beds of Holland and the Easter lily beds of Bermuda, but comparatively few Canadians have any idea that within their own borders is the largest rose and cut flower garden on this continent, where blooms each year are counted in their millions.

The little Ontario town of Brampton is the centre of the cut flower industry of Canada. What is believed to be the first flower farm in that district was founded about sixty years ago by an Old Country gardener and his son. The growing of roses was their hobby. Following the success that attended their efforts others became interested, and so year by year the greenhouses spread on the Brampton countryside and the superb quality of the Brampton roses became known far and wide amongst horticulturists, who lifted their hats in acknowledgement of a triumph. Millions of roses are plucked each year in this district along with uncounted millions of other flowers, to say nothing of the production from asparagus beds, hot-house tomatoes and all kinds of choice garden things.

The latest statistics show over eight million roses sold as cut flowers, greenhouse grown in Ontario in a year, to which the Brampton contribution is very notable.

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No. 316. Thurs. Aug. 12, 1937 - A Canadian Frontier

Social conditions in our Canadian hinterland are being greatly modified by the new, easy methods of transport which bring the city and the frontier into closer contact.

This particular item has to do with the Cariboo region of British Columbia - an interior plateau of grassy hills, jackpine and poplar forests, innumerable lakes, sloughs and marshes. The social life there is old, as age in this Province is counted, for it dates from the early gold rush of the sixties and much of British Columbia's history relates to this region and the various activities which took place there.

Hard upon the heels of the early placer-miner and the boom-camps they built came the cattle-men and the famous Cariboo Road built by the Royal Engineers. Cattle ranchers acquired vast holdings of hilly range and marshy hay lands; their ranch buildings were erected close to the road which was the sole connection with the outside world. The ranchers sold their produce to the miner; they fed and housed the travellers, their oxen, their mules and their horse teams.

Fundamentally conditions are as they were fifty years ago except for the changes brought about by technical developments. The prospector with pan and rocker still persists alongside modern hydraulic placer mining; the old cattle ranches and their stopping places, 70 Mile House, 100 Mile House and others long famous, carry on, some with modern lodges or auto cabins. They still feed the travelling public but the character of the traveller has changed, the bull-whacker and the mule-skinner have given place to the motor mechanic and bus driver. In addition there is the steady stream of tourists that in ever increasing numbers visit this summer playground. The region includes the largest nesting ground for water-fowl in British Columbia and supplies an important contingent to the army of ducks and geese that moves south and south-west each fall. This important resource, although greatly reduced, is still of great value to the Cariboo.

The Cariboo region suffered from water shortage during the drought years starting in 1929 but not to the same extent as did the lands in the middle west. Nevertheless the areas suitable for nesting waterfowl were materially decreased so that the crops of ducks became noticeably less, according to the National Parks Branch of the Mines and Resources Department.

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No. 317. Fri. Aug. 18, 1937 - Journalists in Canada

The desire to write is very widespread, yet it is a fact that only one person in every 3,100 of the population of Canada becomes a writer, or rather one who makes a living out of the written word. By a writer is meant an author, editor, newspaper reporter, newspaper correspondent, publicity agent or the like.

There are only 3,343 of these professional workers in the Dominion, of whom 463 are women, according to the last census.



Approximately two-thirds of these were Canadian born, those born in Great Britain numbered 759, other British Possessions 58, United States 171, Continental Europe 110, Asia 10. Particularly in Western Canada there are many newspapers printed in a foreign language.

It is curious that in point of racial origin the journalists of British origin are disproportionately high as compared with their proportions in other occupations. Nearly 80 per cent are of British origin. One reason for this is undoubtedly the question of language.

Journalism appears to provide very high and regular returns for the labour, for 80 per cent of the authors, editors and journalists are on salary. The men reported to the census an average income of \$2,171 and the women \$1,273.

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No. 318. Sat. Aug. 14, 1937 -- Birds and Insects

Canada spends large sums each year on various methods of controlling the insect pests which attack farm crops, native forage plants and forests. The destruction, on a large scale, of plant life by insects is perhaps more noticeable in the semi-arid regions of the west than elsewhere. Periodically in these regions various species of grasshoppers and crickets reach plague proportions and devastate vast areas. Efforts to control these insect plagues are very materially assisted by the work of birds.

Where such conditions prevail many species of birds feed exclusively upon these destructive insects which can be secured with practically no effort. This food supply is then so abundant that many more young birds reach maturity than is the case when the food supply is relatively scarce.

Amongst the bird enemies of grasshoppers and crickets are the Crows, Swainson's Hawk, Sparrow Hawk, Meadowlark, Brewer's Blackbird, Red-winged Blackbird, Yellow-headed Blackbird, Lewis's Woodpecker, the Magpie and many others. Even Swallows are known to feed upon the small, undeveloped grasshoppers, according to the Natural Parks Branch of the Department of Mines and Resources.

Most of the birds mentioned are either useful or harmless but in the case of the crow it is well known that part of the diet consists of birds' eggs and young birds. There has been much discussion concerning the economic status of the crow, whether the harm caused by destroying other bird life is balanced by its good offices in destroying insect pests or whether the bird's bad habits outweigh its good ones. Many biologists believe that the number of other birds destroyed by crows is compensated for by the destruction of harmful insects.

The destruction of birds' eggs and young birds by crows is very largely done during the early part of the breeding season when insect food is relatively scarce. Subsequently the crow turns its attention towards more easily obtained insect food as this becomes available.

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No. 319. Sun. Aug. 15, 1937 -- Agriculture in Prince Edward Island

Prince Edward Island, the smallest province of the Dominion, leads all the other provinces in the percentage of the total area occupied as farm land. More than 85 per cent of the land area is included in farm holdings and about 65 per

cent of the total is improved land. Almost two-thirds of the improved land is devoted annually to field crops while one-third is in pasture.

The most important crops grown on the Island are potatoes, hay and oats. The combined value of these three crops in 1936 was over eight and a half million dollars. The red sandy loam soil of the Island is particularly well suited to potato growing and the high quality of the Island potatoes is well known not only in all parts of Canada but in other countries of North and South America which are important buyers of seed and table potatoes.

Dairying and hog raising are important farm enterprises but they are perhaps overshadowed in the public mind by the fox ranching which was introduced to the Island some years ago and is now well established on a sound commercial basis. The annual value of fur bearing animals during the past few years has exceeded the million dollar mark.

Strangely enough this province which is so richly endowed with agricultural possibilities has shown but little development in the commercial production of fruit crops. There are a few really fine fruit plantations on the Island but the limited local market and the fact that most farms have at least a small orchard to supply home needs are the main reasons for the slow development in that respect, according to the Agricultural Branch of the Dominion Bureau of Statistics.

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No. 320, Mon. Aug. 16, 1937 . . Canada's Trade with Nicaragua

Although Nicaragua is the largest state of Central America, it does not seem to have attracted so much attention as some of the others; yet it is a country of great possibilities. It is equal in area to our own Maritime Provinces.

Nicaragua was one of the countries discovered by Columbus, came under Spanish domination and achieved its independence over a century ago. The population is about 750,000. A considerable number of the people are of unmixed Spanish descent, and amongst the native Indians are the Mosquitos, who dwell on the Atlantic seaboard and were formerly under British protection. The government is a centralized republic with a president, senate and house of representatives. The president is elected by direct suffrage. The official language is Spanish.

Good roads are very few and transportation is attended with difficulties. Education is backward, at least 60 per cent of the people being illiterate.

Canada's trade with Nicaragua is very small. Our imports are largely mahogany and rosewood. Bananas and other crop products go mainly to the United States. Canada's exports to that country consist in the main of wheat, which in 1936 amounted to about 33,000 bushels, but there are rubber tires, leather, electric apparatus, soda compounds and a variety of other articles, amounting in value to about \$57,000, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 321. Tues. Aug. 17, 1937 - Doctoring the Canadians

Comparatively speaking, there are not so many doctors in Canada as there were years ago. That is, physicians and surgeons. At the beginning of the century there was one doctor for every 969 of the population. The proportion gradually decreased until the latest statistics show one in every 1,034. One reason vouchsafed is that the period of training has about doubled, making the course a long and an expensive one.

Although medical science has advanced like everything else, yet the lack of medical service in rural sections is one of the greatest drawbacks in the country today. The population has become more urban and less rural in general character and it is obvious that, with greater territory to cover and more time consumed in travel, it takes more doctors to attend to the needs of the country than of the city. There is one doctor for every 700 or so people in the large cities, but only one for every 1,300 in the country.

In England and Wales there is only one doctor in 1,363 of the population and in France one in 1,355. The situation is different in two other very advanced social service countries. In the United States there is one medical man in 798, whereas in Australia there is one in 1,373.

About ten per cent of the Canadian doctors were born, though not necessarily educated, outside of Canada -- five per cent in the British Isles or other British countries and  $2\frac{1}{2}$  per cent in the United States, according to the Census Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 322. Wed. Aug. 18, 1937 - More Pig Wanted

Something should be said these days about Canadian bacon. It is good bacon and in what is known as a most particular market it has proved a highly regarded and very popular brand of that food commodity.

The production of bacon and hams in the United Kingdom is only about one-quarter of the consumption, which is close to eleven million cwt. By an arrangement made some years ago, Canada is entitled to send into that market two and one-half million cwt, but the British Board of Trade reports that last year less than one and a half million cwt was received from Canada, so that we were short more than one million cwt.

The pigs born in Canada last year -- over  $4\frac{1}{2}$  million -- were an increase of 15 per cent over 1935, but it is quite evident that a greater pig population is required to meet the export possibilities. This seems likely to be realized, for 28 per cent more pigs were saved in 1936 than in 1935.

Seven years ago the United Kingdom got from Canada only 100,000 cwt of bacon while Denmark supplied over six million cwt. Canada was far down on the list of supplying countries. However, there has been since then a rapid and continued advance with the result that Canada now stands second only to Denmark in the British market, but sending only one-third of what that country supplies, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 323. Thurs. Aug. 19, 1937    Canada's Trade with Tanganyika

The Tanganyika Territory was formerly German East Africa -- from 1884 to 1918. It occupies the east central portion of the continent and the greater part of it is the Central Plateau from which rise mighty mountains, Mount Kilimanjaro being over 19,000 feet high. The Territory is almost as large as Ontario and the native population, which consists mostly of tribes of mixed Bantu race, is about five million. There are over eight thousand white residents. Tanganyika means "Great Meeting of the Waters".

According to German law every native born after 1905 is free, but a mild serfdom was continued under German rule. Legislation for the abolition of slavery was enacted in 1922. Since 1920 the Territory has been administered by a Governor, assisted by an executive council of six nominated members and a legislative council of 13 official and 10 non-official nominated members. There are 4,600 schools, most of which are missionary. The King's African Rifles are stationed in the Territory.

The principal non-native agricultural products are sisal-hemp and coffee, and there are increasing quantities of cotton, maize, tea and tobacco, while the chief minerals are gold, salt, tin and diamonds. The best customer is the United Kingdom, with Kenya second, Belgium third and Germany fourth.

Canada's exports last year consisted largely of motor cars, parts and tires, which alone amounted to over \$165,000, along with canned fish, fresh fruits, machinery, condensed milk, rubber goods and asbestos. Our imports were mainly sisal, cordage, coffee and beeswax, amounting to over \$300,000, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 324. Fri. Aug. 20, 1937    Agriculture in Nova Scotia

Agriculture in Nova Scotia began soon after the first settlement in 1605 and early records show that apple trees were planted at Port Royal, now Annapolis Royal, in 1633. By 1671 the settlers numbered 423 and each had an average of one "arpent" or less than an acre of cleared land, two horned cattle and one sheep. The passing years have seen steady development of the farming enterprise and today agriculture is the leading industry of the province. The thriftiness of the early settlers is reflected in the fact that Nova Scotia leads all the other provinces in the percentage of farms owned by the operators.

Of the total area of the province, only 61 per cent is classed as possible farm land and a little more than half the total, amounting to 4,300,000 acres, is occupied. This is divided into some 40,000 farms with an average of 21 acres of improved land per farm.

Hay is the principal crop grown and accounts for more than half the total value of the field crops. Potatoes, oats and roots are the other leading field crops. A most interesting feature of the Nova Scotian farm picture is the dyked land where the high tides of the Bay of Fundy region have built up large areas of fertile soil, which is now reclaimed from the sea and grows splendid crops of hay and grain.

Dairy cattle and sheep are the most important farm animals in Nova Scotia. A reputation for the high quality of Nova Scotia lamb extends beyond the confines of the province.



In the minds of most people, however, the highlight of Nova Scotia's agriculture is the apple crop of the famed Annapolis Valley. Despite its small size, the province exceeds all others, save Ontario, in the amount of land devoted to fruit growing. Sheltered by the high hills which flank the valleys of the tidal rivers flowing into the Annapolis and Minas Basin, thousands of acres of apple orchard produce each year a crop which is measured in millions of barrels. This fruit finds its way largely to the markets of the Old Country where it has justly earned a splendid reputation, according to the Agricultural Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 325. Sat. Aug. 21, 1937 - Canadian Lawyers

The last census showed over eight thousand persons occupied as lawyers in Canada, with 544 justices and magistrates, not all of whom were necessarily graduates of law schools, but most of whom are likely to be replaced by such. There is thus one lawyer for every 1,200 of the population, and as there is one doctor for every thousand, it would seem to appear that our bodily ills take more looking after than keeping us within the rules by which society governs its actions.

In the Maritime Provinces there are fewer lawyers pro rata to population than in the rest of the Dominion, New Brunswick having the fewest with one in every 1,700 persons. Away on the other side of the Continent, British Columbia has one in less than one thousand, which is the highest proportion in Canada, the next highest being Manitoba with one practising lawyer in just over one thousand of the population. Comparatively speaking, Ontario has more lawyers than Quebec.

There are nine law schools in Canada, three in Quebec, two in the Maritime Provinces, one in Ontario and one in each of the Prairie Provinces. They graduate over two hundred young lawyers every year. The usual requirement of study is three years in a law school after having spent two or more years in the Arts course of a university.

A report on the subject was issued recently by the Education Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 326. Sun. Aug. 22, 1937 - Conserving Wild Life

As the conservation of Canadian wild life was one of the main objects in the creation of our national parks, it is interesting to know just how many of certain species have been saved from the ruthless rifle of the poacher, or how many have thrived under the more or less peaceful nature of their confined homes. The warden service is constantly on patrol and the general health conditions are cared for. Increases or decreases in species are checked.

While a census of game animals in the larger scenic and recreational parks of Canada is not practicable owing to the extensive area over which they may roam, an estimate of species enclosed in the wild animals parks in March last year disclosed a total of about 400 antelope, 7,000 buffalo, 4,000 elk, 900 moose and 1,500 deer, in addition to a number of mammals such as four-horned sheep, Rocky Mountain sheep, the picturesque "bighorn" of the western hills, Rocky Mountain goat and white-tailed deer.

When the danger of extinction of some of the species became evident, the Dominion Government some years ago set aside four wild animal parks in Alberta, three of which have been fenced. Increases, particularly among the buffalo and prong-horned antelope, have been registered during the past year. The provision of sanctuaries for these has undoubtedly preserved them from extinction.

In enclosures in several of the other parks small exhibition herds of wild animals are also maintained as tourist attractions. These fenced areas are accessible to visitors from the main highways.

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No. 327. Mon. Aug. 23, 1937 - Tellurium

Tellurium is a rare non-metallic element for which scientific research has discovered some important uses. It appears as tin-white crystals and is found in the anode slime produced in the electrolytic copper refineries located at Copper Cliff, Ontario and Montreal East, Quebec.

At present the production of hard lead probably provides the chief outlet for tellurium. Tellurium-lead alloys were first developed in the United Kingdom. Although the tellurium content is very small, being less than 0.1 per cent, the alloy toughens under strain instead of progressively yielding like ordinary lead. It is more resistant to corrosion than ordinary lead and its use lessens the danger of poisoning resulting from the use of lead water-supply pipes.

It has also been reported that electro-platers are using a solution of tellurium chloride as a dip for silverware when a dark finish is desired, but it is possible that in the near future there will be an increased consumption of tellurium in the rubber industry, for it has been found useful in the manufacture of thick, hard, rubber articles. A mining cable has been already put on the market with an all-rubber jacket compounded with tellurium.

Canada is an important producer, beginning in 1934. Most of the output has been sent to the United Kingdom, which formerly got its supplies from Germany. The amount produced in 1936 was 35,591 values at \$63,000.

This information comes from the Mining Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 328. Tues. Aug. 24, 1937 - Human Skill in Linen

The spinning of fine linen yarns and the weaving of damask and fine linen is still a technique and an art dependent upon skilled hands rather than the mechanical perfection of the machine, which is in contrast with many other manufactures. In certain sections of Ireland, Scotland, northern France and Belgium, men and women have been working with flax for so many years that their deft fingers handle the sturdy yarn in a way unexcelled by machines. It is from these countries that we get our finest linens.

That human skill which is necessary for making the finest linen is necessary for the flax itself. Clumsy handling of the flax straw in any one of the many stages through which it goes before it is ready for the spinning machine may result in fibre of poor spinning quality.



The art of turning flax fibre into cloth has been practised for at least 8,000 years. Egyptian nobles wore shirts of sheerest linen, the Greeks and Romans valued linen as a rare and costly material. Today it is still an aristocrat among fabrics. The principal linen weaves are the plain weave used for clothing and embroidery linens, twill weave for heavy fabrics and satin weave for damask table linen. Today most linens are bleached by chemicals, but the best quality linens are still grass-bleached.

Our imports of linen, linen yarn and thread last year were valued at over \$9,000,000, nearly half of which came from the United Kingdom alone, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 329. Wed. Aug. 25, 1937 - Canada's Penitentiaries

Canadian penitentiaries are rapidly becoming regarded as industries -- partly to manufacture some government material but mainly to remake men into good citizens fully qualified to take their places in the world of work.

There are seven penitentiaries administered by the Dominion Department of Justice, the two largest being at Portsmouth, Ontario and St. Vincent de Paul, Quebec. The other five are at Dorchester, New Brunswick; Collins Bay, Ontario; Stony Mountain, Manitoba; Prince Albert, Saskatchewan and New Westminster, British Columbia. There are, of course, many other correctional institutions such as industrial farms.

Kingston Penitentiary at Portsmouth may be regarded as a standard. It has an excellent library, hospital, workshops, a school, a large farm and two chapels. The inmates are housed in clean, well-furnished and well-lighted cells, compelled to keep themselves clean and tidy, fed in their cells, given shortened sentences for good behaviour, granted a hearing on each complaint against them, taught to read and write, encouraged to read good books and magazines and to pass high school and college examinations or taught one of the 15 trades.

The lash is not used for the purpose of discipline. It is used under two conditions only -- when the court so orders in the sentence and when the Minister of Justice grants permission in a very extreme case of insubordination. Chaplains conduct religious services.

Despite the increasing population of the Dominion the number of inmates in these penitentiaries has shown a decline in recent years, according to the Dominion Bureau of Statistics. The latest figures show an average penitentiary population of less than four thousand.

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No. 330. Thurs. Aug. 26, 1937 - Linking Canada and United States

International bridges perform a great public service. They make it possible for people from across the border to meet frequently, summer and winter.

There are six of these bridges spanning waters that divide the United States from Canada and they are all located in Ontario. They are fine examples of engineering skill. Probably the one which has the greatest appeal to the imagination of the layman is across the Niagara River. It was a joint undertaking of the United States

and Canada and it was the first successful suspension bridge for railway traffic. For twenty years it was the world's record arch. There is an extra international bridge which does not appear in the records. It joins two little islands of the Thousand Islands group, one of which is in Canada and the other in the United States. It is said to be the smallest international bridge in the world.

Of course bridges do not carry the whole of the international traffic; there are 19 ferries operated and there is a tunnel, but the bridges carry most of the passengers. It has been estimated that the crossings to and from the two countries were about 41,000,000 and 26,000,000 of these were by commercial bridge, ferry and tunnel. There were 12,000,000 motorists crossing on highways. The number of vehicles was almost 6,500,000. These figures, which come from the Transportation Branch of the Dominion Bureau of Statistics, show the immense traffic these international bridges have made possible.

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No. 331. Fri. Aug. 27, 1937 - What Vital Statistics Tell Us

There are two or three important trends to be noted in the volume of Vital Statistics in 1936 issued by the Dominion Bureau of Statistics a few days ago. Some of these trends are comforting; they show progress, but others are the reverse for they show retrogression.

The outstanding item of comfort was the fact that marriages continue to increase. There were nearly 81,000 marriages and they exceeded by over three thousand the number of weddings in the peak year of 1929. While the rate was still below that of 1929, it is gratifying to find that the number is a record. It indicates a decided recovery from the depression years when the marriage low point was reached in 1932.

Another gratifying fact is that infant mortality showed a substantial decline. It was the lowest recorded by the Bureau since National Vital Statistics were made available on a uniform basis.

Disturbing thoughts arise, however, when we find that there was a further decline in the number of babies born from the low level of 1934 and 1935. There were 23,000 fewer new Canadians born in 1936 than in 1930.

The excess of births over deaths gave a natural increase to the population of 113,000.

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No. 332. Sat. Aug. 28, 1937 - Swordfish

In inland Canada we do not hear very much about swordfish. Mainly our knowledge of that monster of the sea is obtained from stories of the enraged fish thrusting his sword through the planking of a vessel. We regard him with dread.

Down in the United States they appreciate more the swift and strong creature. They think of him in terms of food far more than Canadians do, except of course, the Atlantic Coast dwellers. They have realized the excellence of swordfish from the standpoint of flavour and food value alike and so it has come to be a favourite fare among very many people across the border.



Off Canada, swordfish are taken in Nova Scotia waters only and it is in the summer months that the fish are caught. It is quite a common thing to take one weighing several hundred pounds. Because of its popularity practically the whole take is exported to the United States. Last year the summer's catch weighed 1,785,000 pounds, which was considerably less than in 1935, but this year's catch promises better, according to reports on the fisheries received by the Dominion Bureau of Statistics.

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No. 333. Sun. Aug. 29, 1937 - Theology

There is some doubt as to whether the supply of clergymen in Canada is being maintained. This is suggested by the fact that in all provinces except Quebec the number of clergymen between the ages of 35 and 44 is smaller than that between the ages of 45 and 54.

Years ago, comparatively speaking, there were more clergymen attending to the spiritual wants of the people than now. At the beginning of the century there was one clergyman for every 613 of the population; now there is only one for every 816. The present rate is almost identical with that in the United States and Australia while in England it is one in 928.

The province which shows most clergymen for the population is Prince Edward Island with one for every 667, New Brunswick coming second with one in 757. The fewest clergymen are in British Columbia where there is only one in over one thousand people.

The religious denominations which maintain theological seminaries in Canada are the Roman Catholic, United Church, Anglican, Presbyterian, Baptist and Lutheran. The annual number of graduates from seminaries of the Roman Catholic is about one and a half times the number from all the others combined, the total being between 400 and 500. The Roman Catholic Church serves about 41 per cent of the population but many of the graduates from its seminaries are occupied in teaching or other positions rather than parochial work, and are classified accordingly in the census.

Nearly one-third of the clergy were born outside of Canada, 2,634 in the British Isles, 1,219 in Continental Europe and 606 in the United States. More than 29 per cent are of French origin, English 28, Irish 15 and Scots 14, according to the Education Branch of the Dominion Bureau of Statistics.

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No. 334. Mon. Aug. 30, 1937 - Canada's Trade with Japan

The ancient Japanese Empire is one of the great powers of the world. Its area, along with dependencies, is a little larger than the Province of Alberta. Much of the territory has been acquired since 1895, when at the conclusion of the war with China, Formosa and the Pescadores were ceded. The southern half of Sakhatin was obtained from Russia in 1905. Korea was annexed in 1910. These additions increased the area from 147,000 square miles to 260,000, or slightly larger than Alberta. The population of the Empire is over 90,000,000, of which the new areas contain over 26,000,000. The German Pacific Islands north of the Equator are under the mandate of Japan. Tokyo, the capital, with a population of about 5,500,000 is one of the greatest cities of the world.

It used to be, when we regarded Japan commercially, that we thought only of tea and silk but there has been a vast change in the last generation. While tea and silk are still our largest imports, our trade with that country is now not only of large and increasing proportions, but includes a great variety of commodities. The total trade during the last fiscal year, coming and going, was valued at over \$26,000,000. We get oranges, nuts, fresh and canned vegetables, pickles and sauces, beans, peas, rice, peanut and soya bean oil, ginger, plants and trees, drugs, preserved and canned fish, furs, animal bristles, eggs, cotton fabrics, lace, flax, carpets, fishing lines, gloves, furniture, incandescent lamps, glass and chinaware, fireworks, footwear, jewellery, baskets, celluloid toys and a veritable host of other things.

In turn we send a large variety of commodities to Japan, the chief of them being wheat, flour, fish, hides, lumber, wood pulp, paper, lead, nickel and asbestos, all of which shows how extensive is that trade, according to the records of the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 335. Tues. Aug. 31, 1937 -- Reindeer in the North

The annual round-up of Canada's reindeer herd has been completed by officers of the Department of Mines and Resources, who report that the herd is growing rapidly and now exceeds 4,000 animals. The general condition of the herd is excellent.

The fawning takes place during the months of April and May on Richards Island, a well-protected grazing area east of the Mackenzie River. This year about 1,200 fawns were added to the herd.

During the round-up, two hundred miles north of the Arctic Circle, the animals were put through the corrals and counted. Mature steers and aged females, surplus to the requirements, were singled out for slaughter.

As a whole, the reindeer have adapted themselves to the climate and local conditions in the reservation. The herding is done by Laplanders brought from Norway, assisted by the native apprentices who have been selected for training as part of the Government's scheme of developing amongst the Eskimos the art of reindeer husbandry.

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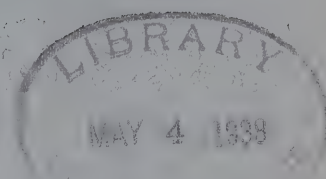
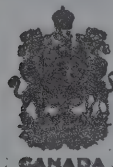




Canada Statistics for 1937

11-D-02

DEPARTMENT OF  
TRADE AND COMMERCE



**A FACT A DAY ABOUT CANADA**

FROM THE

**DOMINION BUREAU OF STATISTICS**

AS SUPPLIED TO THE

**CANADIAN BROADCASTING CORPORATION**

**DURING SEPTEMBER 1937.**

**THIRD SERIES**

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Published by Authority of the HON. W. D. EULER, M.P.,  
Minister of Trade and Commerce.

Price 25 cents per annum



### Contents

- |  |  |
|--|--|
| 336. Agriculture in New Brunswick.                   | 352. Architecture in Canada.               |
| 337. A Big Five in Fish.                             | 353. Imported Paper.                       |
| 338. Canada's Trade with China.                      | 354. Provincial Parks of Canada.           |
| 339. Finding Canada Abroad.                          | 355. Pepper.                               |
| 340. The Name Canada.                                | 356. Swords.                               |
| 341. The Bicycle.                                    | 357. Raw Materials of Industry.            |
| 342. Mineral Production.                             | 358. Canadian Paint.                       |
| 343. The Trans-Canada Highway.                       | 359. Winter Employment.                    |
| 344. Canada's Trade with Zanzibar.                   | 360. Divorces in Canada.                   |
| 345. September Birthstone.                           | 361. The Poor Bachelors.                   |
| 346. Grapes.   | 362. Canada and Czechoslovakia.            |
| 347. Canadian Artists.                               | 363. Budgeting for Winter Costs.           |
| 348. The National Debt.                              | 364. Longshoremen.                         |
| 349. Coming to Canada and Going to<br>British Isles. | 365. Leather Workers.                      |
| 350. Ousting the Drones.                             | Canada Week by Week by<br>Hon. W.D. Euler. |
| 351. "Peelers" or "Bobbies".                         | Index for Series Three.                    |

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Note:- A Fact a Day is broadcast over the Corporation's network  
immediately after the Canadian Press News broadcast.

James Muir,  
Editor.

A Fact a Day about Canada  
from the  
Dominion Bureau of Statistics

No. 336. - Wed. Sept. 1, 1937 - Agriculture in New Brunswick

In the early days of settlement when the area now known as New Brunswick was still part of Nova Scotia, agricultural development was slow. It was not until after the American Revolution, when the influx of Loyalists came to the province, that farming began to assume a position of importance in New Brunswick. Since that time, growth has been steady and today agriculture is the most important industry.

The area of possible farm land in the province, which is a little less than eleven million acres, represents barely sixty per cent of the total area and of this acreage less than a million and a half is improved land.

Mixed farming predominates in New Brunswick. Such live stock enterprises as dairying, hog and sheep raising are popular and most of the field crop area is devoted to the production of grain and fodder crops for stock feed. Hay is an important crop. The tidal marshes, of which the Tantramar near Sackville is the largest, produce extensive surpluses of excellent hay each season.

Potatoes constitute the chief specialty crop of the province. With the one exception of Prince Edward Island, New Brunswick grows a greater acreage of potatoes in proportion to the amount of cleared land than does any other province of the Dominion. Potatoes are widely planted in all sections but the greatest concentration is in the counties bordering the upper reaches of the Saint John river and adjacent to the famed Aroostook potato region of the State of Maine.

Apples, strawberries and raspberries are grown to perfection in the Saint John Valley and there are good possibilities for expansion in the production of these fruit crops, according to the Agricultural Branch of the Dominion Bureau of Statistics.

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No. 337. - Thurs. Sept. 2, 1937 - A Big Five in Fish

The Big Five in Canadian Atlantic fisheries in the following order are lobsters, cod, sardines, haddock and herring. They are all in the million dollar class.

Placing lobster first is because it harvests the most revenue, but it is a question as to which is of the most benefit to mankind. Men sailed ships from Europe centuries ago to the Banks to gather food for the people and cod was what they wanted. Cod was food, strong food. Today, although lobster leads in money value, it is regarded generally as a delicacy, a toothsome morsel. Cod means a hearty meal, like haddock and herring.

Last year the lobster catch had a value of almost four and a half million dollars and came next to salmon on the Pacific Coast. Until comparatively few years ago much the greater part of the lobster harvest was used by the canneries, but recently the trade in live lobsters has expanded greatly and accounted last year for more than two million dollars.



Amongst the Atlantic fisheries cod came second last year with a marketed value of over three and a quarter million. The flesh is sold mainly in fresh and dried forms.

New Brunswick sardines are becoming increasingly popular and in the canned form are sent all over the world. The market value of the sardines was over one and a half million, considerably more than haddock or herring. Atlantic herring are sold fresh, canned, kippered and pickled, and also make fish meal and oil, while haddock are smoked, canned or dried. Finnan haddie is haddock smoked as in Scotland.

This information comes from the Fisheries Branch of the Dominion Bureau of Statistics.

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No. 338. - Fri. Sept. 3, 1937 --- Canada's Trade with China

Chinese civilization is the oldest in the world and its government, based upon that of the family, remained unchanged in its root idea until the revolution of 1912 when a republic was proclaimed with a president, vice-president, executive ministry and a legislature of a Senate and House of Representatives.

The area of China with dependencies is almost four and a half million square miles and is considerably larger than that of Canada. The population is close to 500 million which is approximately the population of the British Empire, so that China and the British Empire together own half the population of the whole earth. Nanking, the capital of the Chinese Republic since the Nationalists came into power in 1928 and Chiang Kai-shek became president, is a city of 1,300,000.

China is one of the countries with which Canada does a fairly large business, running last year up to over \$9,000,000. The great bulk of our imports are peanuts and peanut oil, for China is the home of that favourite nut. But we get a great variety of other things such as hemp, rice, soya bean oil, bone and ivory, cured fish, animal bristles, eggs, cotton lace and net, silk, wool carpets, brass, chinaware, fireworks and preserved ginger.

Paper was Canada's largest export to China last year followed by wood, aluminium, wheat flour, rubber tires, lead, zinc, ammonium sulphate and fish, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 339. - Sat. Sept. 4, 1937 --- Finding Canada Abroad

A resident of Western Canada writes to the Bureau of Statistics to say that early this year he had managed to realize a boyhood's dream --- he had seen the Fiji Islands. When he was there he found many links with his own homeland, but the one thing that brought the connection closest to his attention was a trip he had made in a Canadian automobile. That caused him to inquire about Canadian trade generally with these 250 romantic islands which were discovered by Tasman and Cook. These islands are remarkably healthy for people of European origin.

Canadian trade with the Fiji Islands has unexpected features. No fewer than 164 cars were sent there last year and 135 the year before. We sent a good deal of food, such as canned fish --- over \$70,000 worth last year --- apples, onions and

vegetables, a large variety of paper, books, tools and farm implements, much electrical apparatus and medicinal preparations. Canadian silk stockings appear to be popular. Altogether, Canada gets a lot of advertising in the Southern Pacific through these commodities.

Our imports from Fiji are not so varied, and they get little or no publicity for the reason that raw sugar is the leading commodity and it is refined in Canada. Last year it had an import value of about \$2,500,000. Canned pineapples as well as fresh fruits and dried currants with a little eucalyptus oil made up the rest, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 340. - Sun. Sept. 5, 1937 -- The Name Canada

How Canada got its name has been a matter of controversy for a long period of time, but the historians now seem very generally agreed that the Iroquois word "Kanata" is the real derivation. Kanata is still used in the Iroquois language to mean a collection of dwellings or settlements.

Cartier, in one of his vocabularies of the Iroquois speech, says of it, "they call a town Canada". Its evolution into the place-name Canada can be fully followed in the narrative of the Explorer, where it appears first in his account of his second voyage in 1535. The two Iroquois Indians whom he had seized at Gaspe and taken to France the preceding year informed him on entering the Great River (now the St. Lawrence) that their home was in Canada, which proved later to be an alternative name for the village of Stadacona on the site of modern Quebec City. Cartier himself seems to have extended the word to the surrounding region as a convenient territorial name -- much as the name of Quebec has been extended from the City to the Province.

There have been other explanations of the derivation of the name, such as "Seguada Canada", meaning in Indian "men seeking land", but they appear to be just guesses based on chance resemblance of words. Probably the view of the authorities is the correct one, that Cartier was the originator of the name, and that he took it from the Iroquois tongue.

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No. 341. - Mon. Sept. 6, 1937 -- The Bicycle

Every boy and girl loves a bicycle and that handy means of quick locomotion is becoming more and more popular. It is impossible to say how many there are in Canada, but some guessing can be done from the fact that about 49,000 were manufactured in Canada last year and there were over 37,000 made in 1935. A good bicycle well cared for will last for very many years, so the number in the Dominion must be enormous. The old ones are in many shapes and sizes, and even some of the high wheel specimens of the eighties and nineties are occasionally to be seen around. However, the modern safety bicycle has been pretty well standardized and the streamline idea does not appear to fit in, so the fashion is not likely to change very much.

Besides the home manufactured bicycles we import a great many, chiefly from the United Kingdom. Last year for example, about 14,000 were imported and about 13,000 of them came from Great Britain.



We don't see very many tandem bicycles nowadays. They were very popular a generation ago. They remind one of the old song:

"But you'll look sweet upon the seat  
Of a bicycle made for two."

The modern highway has been a great incentive to bicycle-riding, and if the sales continue to increase at the present rate it would appear they will create a new problem for the road builders.

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No. 342. - Tues. Sept. 7, 1937 -- Mineral Production

Mineral production during the first six months of this year has been remarkable. The greater volume of production and the improvement in prices which has taken place have combined to make the value the greatest for any corresponding period in the history of the Dominion. It is quite evident that by the end of 1937 many new records will have been established.

An indication of what better prices mean is illustrated very well by copper. The output of copper increased by 18 per cent but the value by 89 per cent. Even more striking was the lead situation. The production increased 10 per cent but the value no less than 83 per cent.

Gold, copper, nickel, lead, zinc, platinum and silver were the leading metals and it is an interesting sidelight on mining development to learn that Canada is now the greatest producer of platinum in the world. Thus we have two great leaders in nickel and platinum.

By far the most important of Canadian non-metallic minerals, other than fuels such as coal and petroleum, is asbestos. The value for the half year was between six and seven million dollars. Quebec is the only producing province.

The effect of this increase in the output of Canadian mines is widespread. More employment is given. Indeed the gain in employment has been greater than in any corresponding period of any other year, according to the Mining Branch of the Dominion Bureau of Statistics.

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No. 343. - Wed. Sept. 8, 1937 -- The Trans-Canada Highway

There are only about fifty miles to be built in order to complete the western half of the Trans-Canada Highway, the great thoroughfare which is to extend from Halifax to Vancouver, a distance of approximately 3,500 miles, or a thousand miles farther than from Halifax to Liverpool across the broad Atlantic.

The builders are now working on that fifty uncompleted miles which run around the great northern bend of the Columbia River between the towns of Golden and Revelstoke in British Columbia. That part of the transcontinental path will be called the Big Bend Highway.

The only other uncompleted section of this great road is in north-western Ontario, where construction is being carried out by the Ontario Government. On the Big Bend the work is being carried on by the Dominion Government.

Marvellous stretches of country are being opened up by this Trans-Canada Highway and none will be more picturesque than the Big Bend, for it passes through a magnificent mountain region, within sight of an alpine world. For the greater part of the way it skirts the river, affording splendid views of the Selkirk range and the high peaks of the Rocky Mountain Divide. It passes through one of the finest stands of virgin timber in the country and huge trees rise high above the sides of the roadways.

According to the Transportation Branch of the Dominion Bureau of Statistics, the mileage of surfaced rural roads in Canada at the end of 1935 was 96,000 and that of unsurfaced highways 314,000.

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No. 344. - Thurs. Sept. 9, 1937. -- Canada's Trade with Zanzibar

The Zanzibar dominions of East Africa are very small compared with what they were a century ago. They became independent in 1856 but with the cession of the coast line of the mainland on the south to Germany in 1890 and on the north to Italy in 1904 and 1924, they dwindled to about one thousand square miles, Zanzibar and Pemba being together just half the size of Prince Edward Island. There is a sultan who rules under the protectorate of the British Crown. The population is about one quarter of a million.

As the centre of the Arab power, Zanzibar from the beginning of the 19th Century until quite recently dominated the trade of East Africa. The islands possess practically a monopoly in cloves and produce quantities of copra. In addition Zanzibar serves as a storehouse for the East African coast where both imports and exports are received and distributed.

Of late years its importance as a port of transshipment and distributing centre has decreased, owing to the development of the mainland, to the opening up of the coast ports to direct steamship connection and to the transfer to Aden of the seat of trade with the Benadir coast. However, indications are that the island from its geographical position will continue to retain control of local traffic.

Canada's imports from Zanzibar consisted entirely of 979 cwt. of cloves valued at over \$13,000 and exports to that country were chiefly motor cars and tires, the total export being valued at over \$17,000, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce. (1936 figures)

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No. 345. - Fri. Sept. 10, 1937. -- September Birthstone

The September birthstone is that beautiful gem, the sapphire. It is said to be the symbol of truth and constancy. Tradition tells us that it was upon a sapphire that the ten commandments were engraved. The Persians believed that the earth rested upon a great sapphire of which the reflection gave colour to the sky. It is known as the celestial stone.

The colours of the sapphire suit well a perfect day in September. Most of us think of it in the ~~varying~~ shades of blue, but there are numerous colours such as yellow, bright orange, yellowish-red, reddish purple, violet and yellow-green. The variety known as "cornflower blue" is the most highly prized.



Star sapphires, together with star rubies, have superstitions of their own. As the star is moved, a living star appears. The three cross-bars represent faith, hope and charity. Sir Richard Burton, the famous explorer and translator of the Arabian Nights, owned a large star sapphire which he considered his talisman because it brought good horses and prompt attention on his Eastern travels. The great sapphire "Star of India" was purchased and presented to the American Museum of Natural History by J. Pierpont Morgan. It weighs 343 carats.

The principal source of star and fancy sapphires is Ceylon. Siam is said to furnish half the world's fine blue varieties. Quantities are also found in Burma, Australia and Montana. The supply from Cashmere is almost exhausted. They are very popular with Canadian ladies and several thousand dollars worth are imported each year.

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No. 346. - Sat. Sept. 11, 1937. -- Grapes

One of the fruits which has done remarkably well under cultivation in certain parts of Canada and which seems to be affording a bountiful harvest this year, is the grape, both the wild grape and the garden or farm varieties.

Of course, the grape is not new in this country. It is an aboriginal fruit and it proved a godsend to the pioneers. Wild grapes were plentiful and good. They are so good that some wine makers declare a preference for the wild variety. They were so plentiful when the great Norse navigator Lief the Lucky visited America that he christened the new land Wineland.

These men of the North knew their wine and passed on their knowledge to their kinsmen and trading merchants in Scotland in early days. Hence we have handed down to us a famous legendary poem about a trip to "Noroway" which begins:

The King sat in Dunfermline toun  
Drinking the bluid-red wine

It is curious that our cultivated grape vine, which is native to the Mediterranean, can be grown but does not thrive well in the tropics. The fruits do not ripen uniformly. In Canada most of our commercial grapes are grown in the Niagara Peninsula.

The Dominion Bureau of Statistics has reckoned that the production this year will be considerably larger than last year's crop which amounted to 23,004,000 pounds. The five-year, 1931-1935, average crop amounted to 47,010,000 pounds.

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No. 347. - Sun. Sept. 12, 1937. -- Canadian Artists

The National Gallery of British South Africa has recently purchased five Canadian paintings, which incident brings the reflection that Canada has for a long time been taking her place in the world in the fine arts.

The Census, that most fruitful of sources of exact information, tells us that there are 2,700 artists, art teachers, sculptors and painters in the Dominion and that about 2,000 of them are men, 700 being women. Nearly half of them live in Ontario.

There are provincially-supported schools of fine art at Halifax, Quebec, Montreal, Toronto, Winnipeg, Calgary and Vancouver, in addition to private schools. They differ from most other institutions in that matriculation is not demanded for admission.

Rather more than half of these artists were on salary and the average increment of the men was \$1,700 while the women earned about half of that sum. Some artists make large sums from the sale of their pictures or statues, but the sums mentioned are for salary only.

Not quite half of the male artists are Canadian-born but more than half of the female artists are native-born. Most of those whose birthplaces are in other countries came from the British Isles, and the next largest group came from Continental Europe. There are a few from Asia.

No figures are available for the production of paintings in Canada but the imports of works of art amounted to over one million dollars last year. This was more than double the amount the year before.

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No. 348. - Mon. Sept. 13, 1937. -- The National Debt

The National Debt of Canada has assumed large proportions during the last two decades. In 1913, the year before the Great War broke out, the net debt amounted to \$314,000,000. Last year it was over three billions. It was almost ten times greater.

In 1913 the per capita net debt was \$41 but in 1936 it was \$272. The interest paid per capita in 1913 was \$1.65; last year it was \$12.20.

For many years preceding the War, customs and excise duties, together with the head tax on Chinese immigrants, were the only revenues classified as taxes, and as customs and excise were indirect, the average Canadian felt but little the pressure of taxation for Dominion purposes. The War enormously increased the expenditure and this increase had to be met in the main by loans.

In 1913 the national debt had been incurred almost altogether either for public works of general utility and was represented by corresponding assets or had been expended as subsidies to enterprises of a national character. Broadly speaking it was a debt incurred for productive purposes. Also it was held mainly outside of Canada, chiefly in the United Kingdom. The debt which was incurred for war purposes is not represented by any tangible balance-sheet assets and it is now held mainly in Canada. However, nearly two and a half billion of it, five-sixths of the total net debt of Canada, is now payable in this country, according to the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 349. - Tues. Sept. 14, 1937. -- Coming to Canada and Going to British Isles

The number of people of British nationality who change their permanent residence between the United Kingdom and British North America is quite large. During the last twelve years about 373,000 persons have left the United Kingdom and come to Canada to live permanently, while over 173,000 have gone from Canada to reside in the United Kingdom. This leaves a balance in Canada's favour of almost 200,000.



This movement in favour of Canada was very definite prior to the last few years. In 1924, for instance, 63,000 people came from the British Isles to live in the Dominion and about 16,000 crossed the Atlantic from Canada to take up their abode in Great Britain. That left a balance of 47,000 in favour of the Dominion.

During the last few years, however, the tide has been flowing the other way and more people have been going to the United Kingdom than have been coming to Canada. From 1931 to 1935 only 17,000 came to the Dominion but 77,000 Canadian citizens went to the United Kingdom. However, the number leaving this country has been steadily decreasing since 1932 and the balance against Canada was very small, according to the latest figures received by the Dominion Bureau of Statistics.

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No. 350. - Wed. Sept. 15, 1937. -- Ousting the Drones

This is the time of year when the drones are being thrown out of the beehives to die of cold and hunger. Those who are familiar with the habits of the honey-bee will quickly recognize the mournful dirge of the drones as they are being forced out of the hives by the workers. The workers are busy preparing for winter and there is no room for those who do not toil. The big lumbering male bees are counted as excess baggage, so out they must go.

There are three kinds of inhabitants of the hives, the Queen, the workers and the drones. The drones, or males, were not born to work, but their lordly and comfortable existence ends with the arrival of autumn.

It was only during the first decade after Confederation that commercial bee-keeping in Canada had its beginning. Prior to that it was done in a very small way. In 1895 an apiary was established at the Central Experimental Farm in charge of an entomologist. Later on apiaries were formed on the other experimental farms throughout the Dominion.

Queen bees were introduced from Italy, Austria and Switzerland and studied. The Italians were found to be the best producers. Nowadays beekeeping is quite a large industry and there are about 25,000 beekeepers in the country. They produce over 24 million pounds of honey in a year and close to 300,000 pounds of beeswax, according to the Agricultural Branch of the Dominion Bureau of Statistics.

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No. 351. - Thurs. Sept. 16, 1937. -- "Peelers" or "Bobbies"

Peeler is not a common term in Canada but in England, where it originated, it means a policeman. When Sir Robert Peel first introduced a force of paid men in uniforms to protect the people of London, the people called them "peelers" or "bobbies" after him. Previous to that time, the protection of the community and the enforcing of laws were more or less in the hands of the militia.

In Canada, under the Quebec Act, the custom arose of appointing unpaid constables for the term of one year. These constables were ordinary citizens, like the watchmen who guarded the gates of the English towns in the Middle Ages and they served without pay. After the "peelers" or "bobbies" appeared in London, the beginning of our modern police force began in Canada.

We are told that Toronto was the first city to have a police force in Canada. It was composed of a chief constable and five policemen -- though it was several years before they obtained uniforms. Montreal was without modern police protection when the Parliament Buildings were burned down by a mob of rioters in 1849.

That happened not quite one hundred years ago. Two years ago police statistics collected from 161 cities and towns having a population of 4,000 or over, showed over 5,000 policemen, an average of one policeman for every 847 people.

Not only has the force grown in numbers but its organization has advanced in its scope of work. There are special departments such as plain-clothes policemen, a morality squad and a motor-cycle division, to deal with special kinds of crime. The policeman of today is expected to prevent trouble before it happens, a point not contemplated one hundred years ago. The number of arrests per policeman in a year is about 18 or 20, according to the Dominion Bureau of Statistics.

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No. 352. - Fri. Sept. 17, 1937. -- Architecture in Canada,

Canada differs in its architecture from the older countries of Europe in that it has, as yet, no national style. Each race coming to the new country and bringing with it its own traditions and religion, has contributed its part in establishing a people in a vast country of forest, lake and prairie.

In Nova Scotia, New Brunswick and Ontario, the British tradition in architecture, a combination of Georgian and Colonial, is mainly in evidence while that of Quebec is definitely of French origin, the sound rustic buildings following along the simple lines of the small French town or fishing village. The Western Provinces and British Columbia have developed along British lines with little outside influence, although mention should be made of the Russian type introduced by the Doukhobors.

However, there are two influences at work which may ultimately produce from the melting-pot an architecture which may be called Canadian. One is the Royal Architectural Institute of Canada and the other the Schools of Architecture of which there are two in the West and four in the East.

According to the Census of 1931 the number of architects in the Dominion was about 1,300. More than half of them were born in Canada, over 400 in the British Isles, 54 in the United States and 64 in Europe. Great Britain has supplied Canada with a particularly heavy proportion of men trained as architects, designers, draughtsmen and mechanical engineers.

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No. 353. - Sat. Sept. 18, 1937. -- Imported Paper

It sounds like bringing coals to Newcastle to talk of Canada importing paper, yet we buy great quantities abroad, to the value of between six and seven million dollars in a year. They include a large variety of paper and it is interesting to note how certain papers come mainly from certain countries which make specialties of them. The statements which follow are based on the 1936 imports.

The book, printing and litho paper, not pasted or coated, comes chiefly from the United Kingdom and the United States, with some from Norway. Cover papers come largely from the United States, glazed paper from Belgium and the United States; grease-proof paper, parchmentine and glassine from the United Kingdom and Sweden;



tissue paper from Norway; vegetable parchment from Belgium and the United Kingdom; waxed and wrapping papers from the United States. In the writing paper category, with envelopes, the leading suppliers are the United States and the United Kingdom.

France is by far the largest supplier of cigarette paper, with Great Britain second. Italy sends us some. Germany and Belgium send us some wall paper but the leaders are the United States and Great Britain, the latter more expensive on the average. Waxed stencil paper comes mainly from Great Britain but paper window blinds from the United States; papetries from these two countries but also from Austria, Belgium, France, Germany, Hong Kong, Japan and Czechoslovakia, according to the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 354. - Sun. Sept. 19, 1937. - Provincial Parks of Canada

In previous broadcasts, the national parks of Canada have been brought to the attention of Canadian people but our provincial parks also deserve mention.

British Columbia has 25 provincial parks, the largest being Tweedsmuir which was established last year. Several of the other large ones are Garibaldi, Strathcona, Mount Robson and White Rock.

Alberta has eleven, ten of which were opened in 1932. The eleventh, called Writing-on-Stone came into existence two years ago. The largest park is Ghost River and its area is 535 acres.

Ontario's famed Algonquin is one of the three provincial parks in that province. The other two are Quetico and Rondeau. Quetico is almost as large as Algonquin and the Rondeau covers eight square miles.

Laurentides and Tremblin Mountain are the picturesque names of Quebec's provincial parks and their combined area is over 4,000 square miles.

Saskatchewan possesses eight parks of which the largest are Nipawin and Moose Mountain.

As yet no areas have been set aside as Provincial Parks in the provinces of Manitoba, New Brunswick, Nova Scotia and Prince Edward Island.

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No. 355. - Mon. Sept. 20, 1937. - Pepper

The term "peppercorn rent" still stands in legal procedure in England. It was written into English law because landed proprietors accepted packets of pepper in payment of rent by tenants. A pound of pepper often paid for a year's rent of land.

Men have fought, bled and died for pepper. It has inspired adventurers and explorers. Imagine what western diners had to do without before they had pepper. We get a glimpse of what it meant to those who never had had it, from what Alaric of the Goths did when he reached Rome after twenty years of conflict. The bill the conqueror tendered included 3,000 pounds of pepper.

Europe seems always to have been manoeuvring for pepper since Mother India taught the palates of invaders the charm of the condiment, and even nowadays we occasionally hear of high finance making a corner in the pepper market.

White pepper, which some cooks prefer, is only the black pepper undressed. Black pepper is the whole fruit of the vine. Singapore is the pepper capital of the world and the stock is gathered from all India and the British and Dutch East Indies, and even from the Philippines. India's annual export alone averages some 6,000 tons of black pepper and most of the white pepper comes from the Dutch possessions.

Canada got  $3\frac{1}{2}$  million pounds of unground pepper last year, but most of it came from the Dutch East Indies, the inference being that Canadians prefer the white variety. The figures come from the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 356. - Tues. Sept. 21, 1937. -- Swords

Though the sword is now decorative rather than useful, yet as an ornament and symbol of rank it is by no means out of fashion. Hundreds of swords were to be seen on Coronation Day. British army and navy officers all have swords; diplomatists, politicians and various high officials wear them at Court.

Most of these swords are forged in London, England, by a firm which began in 1772 and which even today does most of the work by hand. Long ago the Toledo blade was the thing. Swords cannot be turned out by mass production; they have to be made. To change a bar of steel into a finely tempered blade needs a subtle skill. Machinery has shortened some of the processes but an eighteenth-century swordsmith would recognize a resemblance of method.

The swords are made by craftsmen who have for generations been engaged in sword-making. One man begins the task of changing a short, rusty bar of fine cast-steel into a long bright, sharp, flexible blade. Another working with an emery wheel, the largest grindstone used in industry, grinds the raw blade and passes it on to be polished.

Many of the blades are decorated by a craftsman who works with pencil and paper, with paint brushes, acids and microscopes transferring regimental crests to cold steel.

From London have come many famous swords. For example, Queen Victoria's Jubilee sword, Kitchener's, one for the new King of Egypt and an executioner's sword for China. The most expensive one was a \$50,000 State sword ordered by an Indian ruler as a present for Edward VII.

Most of the \$4,000 worth of bayonets, swords and fencing foils, imported into Canada last year according to the External Trade Branch of the Dominion Bureau of Statistics, came from the United Kingdom.

No. 357. - Wed. Sept. 22, 1937. -- Raw Materials of Industry

The question of the availability of raw materials of industry in certain countries has been occupying attention for some time and subcommittees of the League of Nations have prepared interim reports on the subject.

Examine six of the leading raw materials without which modern industry cannot function properly, either directly or indirectly. Rubber is the only one of the six which is a colonial product. It can be purchased by all countries on equal terms.



The other five are produced within the boundaries of sovereign states. France, the United States and Russia produce between them 66 per cent of the world's iron ore. The United States and the United Kingdom produce 54 per cent of the world's coal; the United States, Russia and Venezuela produce 81 per cent of the world's oil; the United States, India and China 75 per cent of the world's cotton; Chile, the United States and Canada 49 per cent of the world's copper; Malaya and the Dutch East Indies 83 per cent of the world's rubber.

The late war showed that military power is, under modern conditions, not measured by territory and population but by a nation's industrial equipment and capacity, which involves secure access to certain essential raw materials.

Canada gets most of her iron ore from the United States and Newfoundland, rubber mainly from Malaya, imported coal from the United States and the United Kingdom, petroleum from the United States, Venezuela and Colombia and cotton from the United States, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 358. - Thurs. Sept. 23, 1937. -- Canadian Paint

The story is told that in London there was an old bridge from which a great many people committed suicide by jumping into the Thames. Somebody suggested painting it with light, cheerful paint. This was done and the number of suicides decreased appreciably.

Painted houses are easier to heat in winter than unpainted ones, and some authorities declare that light-tinted paint will increase the amount of heat given off by radiators. Certainly painted houses are more cheerful to look at than unpainted ones. They last longer also. It is said that they are less liable to catch fire, and that it is easier to get mortgage loans on houses that are well painted.

A feature of the landscape is the brightly painted homes in which the Canadian farmers reside. Which is a reminder that an unpainted or darkly painted house in the hot summer is usually very warm. An experience of Professor Picard, the Swiss scientist, illustrates the point. When he made his first flight into the stratosphere, the gondola of his balloon was painted black. At several miles above the earth, when the temperature was 72 degrees below zero the air of the gondola, due to the sun's rays, was 100 above zero.

On the second trip he had a white painted gondola with the result that the temperature remained close to freezing point. Light coloured clothes are cooler for summer than dark clothes.

Canadian paint is highly regarded and sells well in the United Kingdom where the bulk of the export of eight or nine hundred thousand gallons goes, according to the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 359. - Fri. Sept. 24, 1937. -- Winter Employment

The autumn is the beginning of the year for the lumberman, at least in Eastern Canada. From now on gangs of bushmen with their turkeys on their backs congregate around the employment agencies and station platforms. It is the annual exodus to the bush.

The advance guard will be employed in building and repairing roads and camps. Logmakers will follow on their heels and by the time the snow has come and the ground is frozen hard enough for hauling, the work of harvesting Canada's annual forest crop will be well under way.

Throughout the winter the logs and pulpwood will accumulate along the banks of the streams waiting for the spring freshets to carry them to the mills. Much of the material will move in a steady stream direct from the woods to mill by the more modern methods of hauling by trucks, tractors and logging railways. In the spring many of the men who have worked during the winter in the woods, will be employed in the work of transportation.

The task of harvesting the Canadian annual forest production has been estimated at about 80,000 man years of employment; that is to say, 300 days work for 80,000 men. But of course, the men do not work at the task for 300 days. The logging time runs from a few weeks in some districts to perhaps 200 days in British Columbia. It is probable that this industry gives employment in British Columbia to at least 12,000 individuals and in Eastern Canada where the season is much shorter, 200,000 men are provided with employment for at least part of the year when most other employment is at its lowest ebb, according to the Forestry Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

No. 360. - Sat. Sept. 25, 1937. - Divorces in Canada

Divorces are becoming more common in Canada. Last year there were 1,526 divorces granted. This was 150 more than in 1935 and 420 more than in 1934.

Just how far we have travelled in the direction of divorce is indicated by the fact that before the Great War the highest number of divorces in any one year was 60. One of the effects of the War was to increase divorce; the causes are obvious. The yearly number increased rapidly until in 1932 it had reached 995, which was greater than the total of divorces granted from Confederation down to 1917.

During the last three years the number of divorces granted has climbed much more rapidly than for many years. It went over the 1000 mark in 1934. In these three years the number was 4,000 compared with 2,600 in the previous three years. The war does not explain this.

The number of divorced persons living in Canada at the Census of 1931 was 7,441 or one in about 1,400 of the population. Some divorced persons had remarried and these were not listed as divorced. Nor had all these persons obtained their decrees in Canada.

The smallest number pro rata of divorced persons, according to the last census is found in Quebec with one in 3,832 of the population, Prince Edward Island coming second but very close behind. Then follow Nova Scotia, Ontario and New Brunswick. Pro rata to population there are many more divorces in the West than in the East. British Columbia heads the list for all provinces, followed by Alberta, Manitoba and Saskatchewan, according to the General Statistics Branch of the Dominion Bureau of Statistics.



No. 361. - Sun. Sept. 26, 1937 - The Poor Bachelors

If every bachelor in Canada, between the ages of 20 and 35 made up his mind to marry but insisted that he would not enter into connubial bliss unless the young lady was a Canadian, or at least a resident of Canada, and providing also that all the young ladies in Canada between these same ages, were willing, there would not be enough brides to go around.

If all the bachelors really wanted to marry, those who found themselves in the rear of the procession ready to pop the question, would have to cross the border or board a ship to make the quest.

The fact is there are over 249,000 more bachelors between the ages of 20 and 35 than there are maidens, so the Canadian girl has quite a large field from which to choose, if she has any inclination that way. The bachelor, on the other hand, stands a greater chance of being the wallflower at the dance.

This is a disconcerting situation and one that is difficult to remedy, for it is quite evident that many of the maids around prefer to remain unattached like Queen Elizabeth in the days long ago. Domestic cares are not for them; that is, any more than those to which they have already fallen heir.

This information is based on figures from the Census Branch of the Dominion Bureau of Statistics.

No. 362. - Mon. Sept. 27, 1937 - Canada and Czechoslovakia

All over Canada in the past few days there are people mourning the death of Professor Tomas G. Masaryk, the great democratic president of the Czechoslovakian Republic. Not only do the Czech citizens of Canada regret his passing, but all men who love liberty and appreciate the blessings that are the inheritance of freedom are joining with them in their sense of loss.

Masaryk died at 87 and the greatest and busiest years of his life were spent after he had reached the age when it is being demanded in this country and many other countries, that men should cease from active labour and be at rest, giving up their places to younger men. H. G. Wells describes him as "the son and heir of all that was best in the liberalism in the nineteenth century, a man who lived to see the dawn of the new age of fearless thought and unconcealed efforts".

Czechoslovakia has a population of about 15 million, mainly Czechs and Slovaks, with 23 per cent Germans,  $5\frac{1}{2}$  per cent Magyars,  $3\frac{1}{2}$  per cent Ruthenians and some Poles. By the Peace Treaty after the Great War, Czechoslovakia acquired about 80 per cent of the whole industry of the former Austrian Empire.

There are in Canada to-day 23,000 persons who were born in Czechoslovakia, the large majority of them unmarried men. Some of these are found in every province, notably Ontario, Alberta and Quebec. More than half of them are urban dwellers. Over 18,000 are Roman Catholic in religion; the balance are mainly Lutheran, Greek Orthodox and United Church.

Canada does quite a large trade with Czechoslovakia, especially when it is remembered that that country is now almost self-supporting in foodstuffs. We did not send any wheat there last year, only a little flour. The main export was aluminium bars to the value of \$130,000 out of a total of somewhat less than \$200,000. However, that is an export trade which is growing.

It is in our import trade that we have the largest connection with Czechoslovakia. It aggregated close to 2½ million dollars, consisting of a very large variety of commodities, chief of them being boots and shoes, common window glass, hops, cotton manufactures, silk fabrics, woollen goods, paper, furniture, enamel ware, china tableware, glass lamp chimneys, toys, buttons, jewellery, feathers, lead pencils, electric apparatus, gloves, hats, and a great many other things, as well as musical instruments, which we might expect to get from a country in which Bohemians dwell.

No. 363. - Tues. Sept. 28, 1937 - Budgeting for Winter Costs

The fall months are with us again and the family income is being budgeted by careful people to take care of the extra items in the cost of living which accompany colder weather. There is need for heavier clothing and of course fuel for the cold winter months takes a heavy toll to keep the homes warm and comfortable. Fortunately, these extras have shown very small price increases during the past year. In fact, fuels are slightly below last year's levels in most cases, although they are now showing customary small seasonal increases. Woollens and leather goods are likely to tax the budget somewhat more than last fall, but clothing prices generally have advanced very little. The greatest increases in recent months have been for foods, headed by meats and flour. Rents also are stiffening gradually.

It may be of some comfort to know that Canadian purses are not the only ones which have felt an increasing strain. Living costs all over the world have mounted in the past six months, and in many cases the advance has been considerably greater than in Canada. In a few countries, including Germany, Japan and the Irish Free State, official bodies have been organized to curb the strong upward impulse in price levels.

A much more important fact to the worried bread-winner is that wholesale price levels are no longer showing the sharp increases they were a few months past. Just as these increases were the forerunner of rising living costs, now it may reasonably be expected that a pause in the movement in wholesale prices will tend to ease the pressure on the family pocket book.

No. 364. - Wed. Sept. 29, 1937 - Longshoremen

Longshoremen are the workers engaged in the loading or discharging of vessels' cargoes. In England they are called dockers; waterside workers in Australia and transport workers in many other countries. Roustabout and stevedore are other terms used in this country.

The work is varied and each worker is classified roughly according to his job, either the place of work or to the commodity handled. For example, those who stow away the cargo in the hold of the ship may be called "hold men", those who operate the winches, give signals and assist in swinging the "draft" or load from hatch to pier, called "deck men" and those who move the cargo from or to the ship's side "pier men". These three different types of work require strength and endurance and the first two, "hold men" and "deck men", need skill and experience.

This is one of the occupations where periods of enforced idleness alternate with periods of long, hard labour. In the old days, longshoremen, often hungry



and despairing, engaged in tooth and claw struggles with each other to get jobs. After the London docker's strike in 1889, attention was drawn to the prevailing bad conditions and resulted in the first real improvement in regularization of employment, improved methods of hiring and prevention of accidents. But despite this and following improvements most of the fundamental evils of longshore work still persist; in the ports of the Orient, Africa and South America, conditions are probably as bad as they ever were.

It is very difficult to know the total number of longshoremen because the docks act as a catchall for the overflow from other trades and for the failures and misfits from all walks of life. But a suggested estimate is that the United States has about 120,000 of whom some 50,000 are in New York alone. London has about the same number as New York, Liverpool about 20,000, Hamburg and Antwerp some 15,000 each and Rotterdam about 10,000.

In Canada at the last census there were about 5,000 men listed as longshoremen or stevedores.

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No. 365. - Thurs. Sept. 30, 1937 - Leather Workers

Leather workers in former ages occupied a very important place as craftsmen but to-day very little of the craftsman's skill and prestige remains. Leather workers are mainly ordinary machine and wagedworkers.

At one time special quarters in the cities and towns of England, Italy, France and Germany were assigned to leather workers where they had their own guild-halls for banquets and chapels for religious services. Each leather craft had its guild, its song, its coat of arms, its patron saint and its rules and regulations for masters, journeymen and apprentices. Dire punishment came to the tanner, saddler, shoemaker or clothier who passed off poor work or inferior stock.

Of the leather workers, the shoemakers are probably the most interesting for they were not only skilled craftsmen but they were long the theme of song, story and legend. Many of the artists, teachers, poets and preachers of the sixteenth and seventeenth centuries had formerly been shoemakers. One, Simon Eyre, began his career as a shoemaker's apprentice and became mayor of London.

When the making of shoes was shifted from the home to a central shop, there was a great scarcity of shoe workers and children were pressed into service. They worked long hours, often by candlelight, making balls of wax for waxing the thread and closing the uppers of children's shoes. Small girls would stitch the pull-on straps for the sides of boots; small boys could feed the stove with leather scrap, get pails of water for cooling edge irons and cut lengths of thread for sewing.

Then came machinery. The earlier machines did not displace the worker's skill but aided him. However, when Gordon McKay and others introduced machines which performed all shoemaking operations, the craftsman disappeared. Now, even repair work is being done mainly by machinery.

This occupation has always been dangerous, for not only is the worker endangered by machinery which might cause punctures from stitching needles or cuts from grooving or cutting knives but there is the danger of anthrax and skin diseases from handling impaired hides, and poisoning from chemicals used in tanning and dyeing. But people must have shoes and so the work must be done. In Canada at the last census there were 25,000 people employed making leather goods; over 16,000 of them were making boots and shoes and 3,000 were engaged in tanning the leather.



### Canada Week by Week

The Hon. W. D. Euler, Minister of Trade and Commerce, spoke as follows over the National network of the Canadian Broadcasting Corporation on Monday Evening, September 27, 1937: -

For some years, at least some of you have listened to a little broadcast each evening from the Dominion Bureau of Statistics, of the Department of Trade and Commerce, at Ottawa, entitled "A Fact a Day about Canada". In these broadcasts our purpose has been to give information on miscellaneous activities and interests throughout the Dominion, from governmental affairs and our great industries down to much smaller but still in their way important items. The social life of the community was not neglected; our institutional services, our education, our religions were touched upon; often the effort was made to link up the past with the present. The hope was that from these bits of striking information, presented evening after evening, there would grow up in the public mind a general idea of the trend of Canadian affairs, not only in our relations to one another at home, but in our relations to the rest of the world.

It has been gratifying to observe the response to these broadcasts on the part of the public, particularly the youthful public, more especially in the Prairie Provinces, many of them the sons and daughters of recent arrivals in Canada. The large correspondence that has come to the Bureau in connection with these broadcasts, sometimes running up over 800 letters in one month, shows clearly that they have been stimulating and helpful.

More than that, many of the teachers of the Dominion use these "Facts a Day about Canada" as supplementary text books. A great many business houses throughout the Dominion have also requested copies of the Broadcasts in their monthly printed form, because they have found them of use. They have been quoted extensively by the newspapers.

It seems desirable to make a change in the manner of presenting such information, and so, at the request of the Canadian Broadcasting Corporation, the Bureau will now put on the air at 8 o'clock every Monday evening, a fifteen minute talk dealing with the current matters of fact as statistics reveal them. However, the printed issue of "A Fact a Day about Canada" will be continued monthly as long as there is a demand for it, so that there will be no interruption of the flow of interesting items of information available for teachers and others who may desire to use them. People abroad who have asked for these facts will also receive them.

The new weekly broadcast, which will be entitled "Canada Week by Week" will give statistical material in relation to passing events, so that the general trend of affairs, commercial and social, in the Dominion may be grasped more readily by the public. The effort will be made to convey this in every-day conversational language, avoiding the use of technical jargon as far as possible.

Special attention will be given to our various productive activities and the progress of our trade abroad. It is the commodities we make that form the basis of our material standard of living. These, of course, involve internal and international exchange. Their ramifications are so wide that they touch somewhere almost every phase of human activity.

There is also the place of Canada in the general scheme of things, how the Dominion is playing its part in world affairs, so far as the statistical records tell the story. We shall try to show how all our human activities are but parts of a connected whole, an interwoven fabric that makes us a nation among the nations.



But it should be borne clearly in mind that the Bureau is not fashioning or distributing opinions, and least of all is it uttering predictions. Only statistical facts are presented. It is for you, the listeners, to form your own opinions and conclusions. The framing of policies is not the function of the Bureau. That function is solely to state the facts from which policies, both governmental and private, may be framed.

Let me give you an illustration at this point of the variety and importance of the facts which the Bureau gives in that field of international relationships to which I have just referred and which I mention because it is only to-day that the statement in question is being published. The statement has to do with the Canadian Balance of International Payments, and represents an effort to sum up and tabulate the entire list of commercial and financial transactions which Canadians have with other countries.

These, of course, are extremely numerous and varied. The largest item is that of the buying and selling of goods. The balance of exports or imports shown in these figures is known as the "visible" trade balance. During the ten-year period of 1927-1936 we sold more goods to foreign countries than we bought to the extent of over 882 million dollars. In addition, net gold exports is a further favourable balance amounting to 800 millions. These two items together make a net credit balance of nearly seventeen hundred millions of dollars.

But the visible trade is not the only kind of transaction which Canada carries on with other countries. There are many important so-called "invisible" items in our international commerce. There is, for example, the Tourist Trade which gave us a favourable balance during the ten years which actually approaches a billion and a half dollars. This is equivalent to an export of goods and services to the people of other countries.

On the other side of the international accounts are invisible items which show adverse balances. Interest payments and dividend payments abroad during the period showed a balance against us of nearly two and a half billions, and freight receipts and payments an unfavourable balance of nearly a quarter of a billion. However, when all the debits and credits obtained through our international trade items, both visible and invisible, are summed up, we had during the ten-year period a favourable balance of over two hundred and eleven million.

How was this credit used? Since it was a surplus over what we expended and received for the purchase and sale of commodities and services, it must have represented an outflow of capital from Canada. A study of capital movements during those years indicates that it was used chiefly to retire, or pay, Canadian indebtedness abroad, to purchase foreign securities, to buy back our own Canadian securities, to meet various other capital obligations, and a portion of it represents unrecorded transactions.

In 1936, for instance, when we had a favourable balance of visible and invisible items of over three hundred millions, we used the most of it to meet bonds falling due, to pay bonds held abroad before they fell due, to meet capital obligations arising from international branch manufacturing activities and so on. Last year alone, bond maturities were paid off to holders in other countries to the amount of 145 millions, bonds were called and prepaid from abroad to the amount of 85 millions and there were other payments amounting to 40 millions. Last year, new bond issues abroad amounted to only about 100 millions.

Thus we have a concrete measure of the very considerable progress which



Canadians have made during recent years in reducing their bonded indebtedness abroad, not only through meeting maturities, but also through paying certain issues before maturity. The latter in many cases represent refunding issues taken up in Canada at lower rates of interest. That is, instead of owing these moneys to foreign countries we owe them to our own people. Bonds thus called from abroad and prepaid in 1935 and 1936 were respectively 120 million dollars and 85 millions. From all this we get a very definite idea of how complicated the economic relationships between Canada and other countries have become.

I mention this as a sample publication of the week which to me at least is full of interest. But the number and variety of such possible statements are legion. The Bureau is a central statistical organization not only for the various departments of the Dominion Government, but embraces also a series of arrangements with the provincial governments covering all those subjects which under the British North America Act are relegated to Provincial jurisdiction but on which comparable statistics are none the less needful. Of trade, as already remarked, there will be much to say in these Broadcasts, both in general and in particular, as of our exports of wheat to Europe and of our imports of coffee from Kenya, once the producer only of ivory tusks; as of our exports of automobiles, lumber, paper and fish to Australia, of our imports of cryolite for our aluminium plants from Greenland, once only the ice-bound settlement of the Norsemen, our enormous exports to Great Britain and the United States of commodities of all kinds.

And so we go on through the multitude of things abroad that interest us and have an influence upon our lives, and back again to our own country to find out the statistical situation in many things -- our population; our birth, death, and marriage rates; about the clergymen who preach the gospel; the physicians who heal; the teachers who instruct the young; the employment of the people; transportation; manufacture, agriculture, mining, forestry, fishing, construction, shipbuilding; -- in a word all our social and economic activities. We shall discover from our criminal statistics how closely or loosely we are conforming to the standards and codes which we have set up. We shall be told of the cost of our progress in the air and on the highway -- the cost in human life as well as in money.

I suggest to our listeners that statements as to trade should not be regarded purely in the light of what we are able to sell -- important as that undoubtedly is -- but that we should recognize in our imports a friendly link with the countries from which we buy. Trade is not pure barter. Trade to me is a vehicle of goodwill, drawing the nations closer together. To me fair trading and reciprocal commerce are the most powerful influences in the world to-day for peace, and I believe that in this respect Canada is exerting a strong influence in the direction of that peace and happiness for which all men of good will are striving.

As the Minister of the Crown who, as Minister of Trade and Commerce, is the administrative head of the Dominion Bureau of Statistics, it is my hope that you will find these talks not only interesting but informative and useful.

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No. 330. - Aug. 26, 1937 - International Bridges

It should be noted with regard to the broadcast concerning international bridges that the bridges, of which statistics were given, are the commercial or privately owned bridges for the crossing of which tolls are charged. There are other bridges of course, such as in New Brunswick, but these are publicly owned bridges which are free.

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Index for Series Three

October 1936 to September 1937.

1	Accidents on the Highway	30	Cabbage
48	Acetylene	84	Cables and Telegrams
180	Agricultural Machinery	112	Canada 1937
319	Agriculture in Prince Edward Island	127	Canada's Accounts in 1936
324	Agriculture in Nova Scotia	339	Canada Abroad
336	Agriculture in New Brunswick	340	Canada
170	Aliens, European	295	Canadian Exhibits Abroad
173	Aliens, Asiatic	316	Canadian Frontier
176	Aliens, British Origin	79	Candles, Christmas
69	Almonds	262	Carrageen
70	Amber	250	Cars and Trailers
54	Ambergris	258	Cassava
121	Apples, New Hybrid	278	Cattle, Exports
169	Apples, Imports	19	Cement
240	Apples, Blossom Time	117	Census, Fitting the Job
177	Asparagus	301	Central Electric Stations
352	Architecture in Canada	41	Chalk
314	Arctic Wild Life	199	Charcoal
347	Artists, Canadian	228	Children in Church
257	Automobiles Generate Own Gas	156	Chinaware
		85	Christmas Trees
361	Bachelors	235	Church Vestments
21	Banks, Canadian Abroad	259	Cinchona Bark
160	Barbers	120	Clocks
285	Bauxite	202	Clubs, Children's
77	Beds	111	Coal, Supply
350	Bees	204	Coal, Canadian
293	Beeswax	265	Coal, Mining Under the Sea
179	Benevolent Institutions	254	Cocoa Tree
6	Bible	143	Cod Liver Oil
341	Bicycles	184	Coronation Stone
185	Birds, Conserving Bird Life	224	Coronation
318	Birds, and Insects	109	Crime
101	Births	74	Crops, Field
105	Births, Natural Increase	239	Crops, Field
186	Birth Stones		
24	Blacksmith Shops	211	Dairying
46	Bleaching	134	Deans, Infant
191	Bone China	110	Debt, Government
57	Brass	102	Dentistry
135	Breakfast Foods	195	Diamonds
171	Bread	360	Divorces
330	Bridges, International	38	Drug Stores
18	Bristles	321	Doctoring the Canadians
139	British Columbians	260	Dogs
349	British Isles, People Returning to	25	Dyes, Historical Names
142	Broom Corn		
256	Brunette Canada Goose	29	Education Statistics
363	Budgeting for Winter Costs	58	Education

144	Education Week	32	Hats, Silk
238	Education	39	Hats, Women's
232	Eels	292	Helium
175	Eel Grass	201	Highway Crossings
166	Eggs	307	Historic Sites and Monuments
280	Eggs, Export	203	Hogs, Streamlined
227	Electrical Assistance	266	Honorary Degrees
237	Electricity	62	Horses
222	Emeralds	219	Horses
125	Employment in Winter	141	Hospitals, Cost
359	Employment in Winter	231	Hospital Day
47	Epsom Salts		
130	Eucalyptus Oil	78	Immigrants
290	Evaporated Milk	272	Industrial Production
309	Explorers and Investigators	279	Instalment Buying
		88	Institutions
107	Farms, Northward on the Prairies	16	Insurance
108	Farm Changes on Prairies	281	Irish Going Home
233	Feathers and Down		
49	Feed and Fodder	288	Japanese Beetle
82	Felt	317	Journalists in Canada
33	Fertilizers		
253	Figs	15	Kitchen Utensils
294	Film Library, Empire		
51	Financial Institutions, Canadian	212	Lamb
10	Firefighters	165	Languages
218	Fisheries, Inland	325	Lawyers
275	Fishing Territorial	263	Leaf Collections
289	Fishing Industry	89	Leather, Canadian
337	Fish	365	Leather Workers
193	Flowers, Cut	65	Libraries, Cost
214	Flowers, Preservation of Wild,	97	Libraries
270	Flowerpot Island	148	Libraries, Regional
95	Foil Wrappings	300	Limes
37	Food Prices Rising	283	Limestone
198	Food Products	328	Linen
225	Food Exports	2	Linotype
230	Fruits, Fresh Imports	28	Linseed Oil
308	Fruit Growing	291	Locust Bean
271	Fuel Mixture, New	364	Longshoremen
147	Fur Farms	217	Lumber, Canadian
274	Fur Farms		
		226	Macaroni
297	Ghee or Clarified Butter	64	Manganese
35	Ginger	310	Manufactures, Canadian
304	Glassware	313	Manufacturing Phases
83	Glass Windows	277	Maple Leaf
	Gloves and Mitts	282	Marmot
75	Glue	113	Marriages, Age
76	Glycerine	331	Marriages
100	Golf	210	Meat for Great Britain
60	Grapes	246	Mentally Sick, Cost
346	Grapes	311	Microphotography
86	Greetings from the Minister	116	Mining 1936



342	Mineral Production	196	Price Relationships
273	Molasses	140	Prices, Stock
136	Money Canadian Abroad	255	Printing
221	Mother's Day	91	Prospects for Canada 1936
145	Motion Pictures	194	Pulp and Paper
106	Museums		
248	Mustard	244	Queen Charlotte Islands
215	Nails, Canadian	223	Rabbits
114	Narcotic Drugs	45	Radios
348	National Debt	96	Railway Ties
11	National Wealth	357	Raw Materials of Industry
163	Newspapers	335	Reindeer in the North
93	New Year's Resolution	87	Religion, Non-Christians
124	Nursing	200	Religious Literature
71	Nuts	55	Rentals
		26	Restaurants
286	Oil Cake and Meal	269	Rings, Wedding
167	Onions	315	Roses
159	Oysters	264	Ross's Goose
		305	Rough-Legged Hawk
358	Paints, Canadian	242	R.C.M.P. Horses
43	Paper Boxes and Bags	284	Rubies
90	Paper and Pulp	133	Rubber
183	Paper Making Machine	197	Rubber Tires
162	Paper Making and Water		
353	Paper, Imported	345	Sapphire
354	Parks, Provincial	312	Seaweeds
42	Peace	98	Scrap Metal
252	Pearls	63	Schooling, A Declining Industry
126	Peat	99	Scholarships
329	Penitentiaries	27	Silk, Artificial
67	Pensions	104	Silk
355	Pepper	216	Sleepers
131	Petroleum	53	Soapstone
151	Pharmacy	261	Sodium Metasilicate
209	Phosphates for the Farm	174	Spices
44	Photography	56	St. Catherine's Day
137	Pianos	61	St. George's Day
9	Pilchards	207	St. George's Day
243	Plastic Lenses	267	St. John Baptiste
34	Plywood	146	Street Cars
351	Policemen	115	Store Accounts
81	Population Women	190	Sugar
268	Population, Estimating	161	Sulphuric Acid
298	Population, Western	356	Swords
287	Pork-eating Canadians	332	Swordfish
322	Pork, More		
132	Potatoes, Seed	4	Tea
187	Potatoes, Sweet	5	Tea Clippers
149	Power Age	122	Telephone
150	Prairie City People Moving	327	Tellurium
213	Prairie Farms, Water for	158	Theology
296	Precious Metals	333	Theology
119	Prices	12	Tin Cans

13	Trade, World	343	Trans-Canada Highway
17	Trade, Canadian	80	Trapping
118	Trade, Foreign	249	Trumpeter Swan
92	Trade Missions	68	Tuberculosis
20	Trade, Tourist	72	Tuberculosis
205	Trade, Tourist, Overseas	168	Turkey Raising
206	Trade, Tourist Overseas	8	Tweed
154	Trade with Aden	247	Typewriters
31	" " Australia	251	Vanilla Beans
123	" " Australia	157	Vegetable Oils
241	" " Belgium	299	Vetinary Science
22	" " British Honduras	234	Vinegar
129	" " Bulgaria	236	Victoria Day
338	" " China	188	Victorian Order of Nurses
66	" " Colombia	303	Vocational Training
3	" " Cuba	208	Waterproof Clothing
362	" " Czechoslovakia	306	Wattle Bark
178	" " Dutch West Indies	50	Whales
14	" " Ecuador	23	Wheat, Canadian in France
52	" " Guatemala	128	Wheat, Prairie
220	" " Haiti	138	Wheat, World Trade
59	" " Hungary	182	Wheat, Sale
334	" " Japan	276	Wheat
162	" " Latvia	181	White Grub
320	" " Nicaragua	326	Wild Life, Conserving
189	" " Panama	103	Wines, Canadian
229	" " Panama Canal	36	Wood, More Heat
94	" " Salvador	153	Women in the Business World
40	" " St. Pierre and Miquelon	155	Woollen Textile Industry
164	" " Smaller British West Indies	245	Yeast
323	" " Tanganyika	302	Yellow Cedar
73	" " Trinidad		
192	" " United States		
172	" " Yugoslavia		
344	" " Zanzibar		





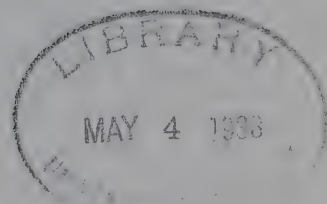






11-D-02

DEPARTMENT OF  
TRADE AND COMMERCE



**A FACT A DAY ABOUT CANADA**

**FROM THE**

**DOMINION BUREAU OF STATISTICS**

**OCTOBER 1937**

**FOURTH SERIES**

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Published by Authority of the HON. W.D. EULER, M.P.  
Minister of Trade and Commerce.

Price 25 cents per annum



## Contents

1. Our New Coinage.
2. Bilingual Money for Canada.
3. Fish Stories.
4. Hops.
5. Pioneer Shipping on the Upper Lakes.
6. Canadian Canals.
7. Iron.
8. Pemmican.
9. The Quest for Beauty.
10. Streets of Gold.
11. Thanksgiving Day.
12. Radios for Schools.
13. Use of Films in Canadian Schools.
14. Granite.
15. Gelatin.
16. October Birthstones.
17. Canada's Golden Future.
18. Rubber Fenders.
19. Man-made Sponges.
20. Chops in China.
21. The Eighth Wonder of the World.
22. Canada's Imports of Peanuts.
23. Flax, Hemp and Jute.
24. Flax Produced in Canada.
25. The Discoverer of Insulin.
26. Turnips for the United States.
27. Air Pollution.
28. Canada's Textile Production.
29. Berry Boxes and Baskets.
30. Barrel Staves and Skis.
31. Any Hallowe'en Apples?

James Muir,  
Editor.

## A Fact a Day about Canada

from the

Dominion Bureau of Statistics

### No. 1 --- Our New Coinage

This year the Royal Canadian Mint issued a new series of coins which were designed with the co-operation of the Royal Mint in England and the Mint in Paris. These issues are typically Canadian and remind us that it is only since 1931 that the Mint at Ottawa was operated as the Royal Canadian Mint.

At first the British North American provinces, and later the Dominion of Canada, obtained their coins from the Royal Mint in London or from The Mint, Birmingham, Limited. In its earlier years the operations of the Mint in Canada were confined to the production of gold, silver, and bronze coins for domestic circulation, of British sovereigns, and small coins struck under contract for Newfoundland and Jamaica.

Gold coins have not been struck since 1919. Most of the gold refined at the Mint is delivered to the Bank of Canada in the form of bars weighing 400 fine ounces each, the rest being sold in convenient form to manufacturers. The fine silver extracted from the rough gold, when not required for coinage, is sold in New York or disposed of to local manufacturing firms.

All the new coins have on one side the effigy of the King with the inscription "Georgius VI D.G. Rex et Ind. Imp".

For the reverse sides the designs are as follows: One dollar, a canoe manned by an Indian and a voyageur, an islet in the background; above, the word "Canada" with the Northern Lights; below, the word "dollar" and the date of the year, with a graining upon the edge. Fifty cents, between supporters the ensigns armorial of Canada in a shield surmounted by the Royal Crown, "50 cents" above and "Canada" below. Twenty-five cents, a caribou head, "25 cents" between the antlers, and surrounded by the word "Canada". Ten cents, a fishing schooner under sail, "Canada" above and "10 cents" below. These latter three bear the year and a graining upon the edge.

The five cent piece has a beaver, above "5 cents" between two maple leaves and below "Canada". One cent, a two-leaved twig of maple, "1 cent" above, and "Canada" below. Both bear the year and a plain edge.

The silver coins issued at the Ottawa Mint last year were valued at \$809,200, nickel coins \$202,600 and bronze \$87,200. Gold coin and bullion, or bars, amounted to \$3,625,549.

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### No. 2 -- Bilingual Money for Canada

Not only have the coins in our financial transactions undergone a change but the paper money or bills have also taken on a new appearance. The Bank of Canada has recently issued bilingual notes replacing those in French for French-Quebec and in English for the other Provinces. They range from one dollar to a thousand dollars. Two of them, which few of us ever see, \$1,000 and the \$100 bills, bear the portraits of Sir Wilfrid Laurier and Sir John Macdonald, respectively. The rest bear the portrait of King George VI.



On each of the eight new notes there appears a scene depicting some industry. Here are the symbols:

- \$1 -- A female figure holding on her knees a rake, hoe and fork, personifying agriculture.
- \$2 -- A female figure, sickle in hand, seated in front of an overflowing cornucopia, emblematic of harvest.
- \$5 -- A male figure seated on a dynamo, with background of mountains, water fall and a power dam, representing hydro-electricity.
- \$10 -- A male figure, Mercury, with background representing travel by water, rail and air.
- \$20 -- A female figure sickle in hand, amidst products of field and orchard, expressing fertility.
- \$50 -- A female figure depicting modern invention as expressed in radio.
- \$100 -- A male figure showing a child with a miniature ship, with harbour scene and blast furnaces in the background, typifying commerce and industry.
- \$1,000 -- The figure of a mother, sword in hand, shielding her child, symbol of security.

In the denominations under \$5, which have been used for many years for general circulation, there has been little change in the number recently. Denominations from \$5 to \$1,000 have shown an increase. On the other hand Dominion notes, in denominations from \$1,000 to \$50,000 which were used almost exclusively for inter-bank transactions or bank reserves, are no longer in use.

The denominations of Dominion or Bank of Canada Notes in circulation during 1936 totalled \$105,275,223.

### No. 3 -- Fish Stories

This month the delegates of the North American Council gathered together to discuss important research problems in North Atlantic waters. Although the Council is made up of members appointed by Canada, Newfoundland, the United States and France, these meetings discuss results which affect fishing practices throughout the world.

Canada, as we know, has an immense amount of wealth in the fishing industry and also in its attraction as a sport. For this reason it is important that problems relating to the depletion of various species be studied. This year's meeting dealt particularly with haddock, cod and mackerel.

Last year one hundred million fish were added to the rivers, streams and lakes by the Dominion's Department of Fisheries. The majority were made up of the eggs of the sockeye salmon of which there were nearly 65 million. Next came Atlantic salmon, followed by trout fry and fingerlings.

So much for the restocking of the Canadian inland waters but along the Eastern coast the oyster fishermen are suffering through civil strife in the fish realm.

They have named the starfish Public Enemy No. 1 and a bounty is being paid for every gallon of starfish procured. This queer fish has a failing for oysters and has opening the shells down to a science. It merely clasps the oyster in its arms -- there are usually five of them -- and applies pressure to the valves of the shell by means of sucker discs. As the pressure goes on the starfish dulls the oyster's power of resistance by injecting a narcotic substance between the edges of the shell. So further study of this extraordinary fish may bring joy to the hearts of the people of Prince Edward Island and more profit from their oyster beds.

Canada's harvest from the fishing industry runs between 34 and 35 million dollars annually, according to the Fisheries Branch of the Dominion Bureau of Statistics.

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#### No. 4 -- Hops

The word "hops" may bring to mind one or two things, either the concocting of a beverage or the stirring story found in some of the school books wherein a young British soldier, rather than turn traitor to his country, suffered death. Before he died his thoughts turned to his home in faraway England and the picture of Kentish hop-fields again appeared before him.

This plant which the young soldier associated with everything that meant home, grows in Canada. The Fraser Valley of British Columbia is one of the few parts of the Dominion where it is grown commercially and this fall some three thousand pickers spent five or six weeks in this district picking hops from the plantation areas. Many people grow this plant simply for its attractive appearance.

The hop-vine is a perennial climbing herb. The hops are the soft greenish cones which are one or two inches in length, composed of thin leaf-like scales having a bitter taste and a heavy narcotic odour. The duration of the plant varies from fifteen or twenty years to an indefinite length of time. Some of the finest hop gardens have been in existence for over one hundred years. In such cases a percentage of the stocks die and are replaced every season. No crop is more affected by the weather, nor more subject to destruction from blight or attacks of aphids and other insects.

Although a few cones may find their way into a hop-pillow which is supposed to induce sleep, the hops grown commercially find their way into the brewing industry. About one million pounds of Canadian grown hops are used annually and the same quantity imported. The United States supplies more than half of them, Yugoslavia and Czechoslovakia each sent over 200,000 pounds last year, Germany sent over 100,000 pounds and Poland 71,000. Some of the Kentish hops may have arrived in the quantity sent from the United Kingdom. Strangely enough about 200,000 pounds of hops were exported to the United Kingdom and a small quantity to Hawaii, according to the External Trade Branch of the Dominion Bureau of Statistics.

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#### No. 5 -- Pioneer Shipping on the Upper Lakes

Until 1845 Lake Superior was little known except by some missionaries, fur traders and adventurers. As far as trading went, the other four Great Lakes were much farther ahead. The rapids in the Soo River were responsible in a great measure for hindering navigation.

The first seven steamers on Lake Superior were hauled out of the water below the rapids and transported across the portage on ways and rollers in a manner similar to the way buildings are moved today. The boats were launched again above the rapids.



The first steamer was the Independence built at Chicago and the second the Julia Palmer, built in Buffalo.

In 1857, as the result of Canadian foresight, the Government fitted out an expedition to survey a wagon road and to report on the natural resources of the country between Lake Superior and the Red River. The side-wheel steamer Collingwood was chartered and on July 26, set out for Fort William. On August 1, the Collingwood arrived at the harbour bar, the first registered Canadian steamer to pass through the canal and plough the waters of Superior. Aboard were 44 people, including a few Indians. At Fort William some more Indians were engaged but, owing to tribal troubles, they were kept in different canoes.

Shipping on the Upper Lakes became brisk when settlers from Buffalo went to the western United States and grain was brought back. As trade developed in the country beyond Lake Superior other vessels were built to transfer passengers, freight and mail from east to west. The first mail consisted of three letters and two newspapers. In that period Canadian shipping made its profit by carrying United States goods but this was the cornerstone of our present day trade to and from Western Canada.

At the present time the greater part of the Western grain is shipped via the Great Lakes to eastern ports. The iron ore and coal traffic between lake Superior and lake Erie is chiefly United States traffic and sometimes exceeds 80 million tons in a year. Figures from the Transportation Branch of the Dominion Bureau of Statistics tell us that the total traffic on these Upper Lakes alone is greater than that carried by all Canadian railways.

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#### No. 6 -- Canadian Canals

Canals have played a most important part in the development of Canada, particularly in the East. They opened up the country in the early days just as steam railways later on, made Western Canada accessible and created a great settlement.

The earliest mention of canals in Canada is in connection with the Lachine. It was projected in 1700 by early French settlers and its construction was first attempted by the Sulpician priests. Farther up the River, the Royal Engineers completed the locks between Cascades and Coteau Landing in 1783 in time to help transport the United Empire Loyalists to their new homes.

In 1812 the lock at the Canadian Soo, built by the North West Company, which connected Lake Huron with Lake Superior, had been destroyed by the Americans and the Imperial Government decided to build the Rideau to afford a second route between Montreal and Kingston. This was in case another war with the United States made the St. Lawrence route impracticable.

By 1832 the Rideau waterway was finished by the engineers of the regular army. One of their works was a remarkable series of eight locks at Ottawa. The corner stone was laid by Sir John Franklin, the great Arctic explorer. Until the St. Lawrence canals were built, most of the trade and travel between Upper Canada and Montreal passed over the circuitous route of the Rideau and Ottawa.

The first sod of the Cornwall Canal was cut by John Beverley Robinson in 1834. It took eight years to complete it.

Not until 1911 was the plan for the Georgian Bay Canal definitely abandoned. This route was to connect the Great Lakes with the Atlantic via Georgian Bay and the Ottawa River. But the project died, leaving only a partially completed lock a few miles above the City of Ottawa.

You will remember that Champlain had made the Trent famous with his journey from Lake Couchiching to Lake Ontario. In 1820 the Imperial Government proposed the Trent Canal. However, some residents from the Niagara Peninsula influenced the Canadian Government to divert the work from the Trent Valley to commence operations upon the Welland instead.

From small beginnings there has grown up a very complete system of canals which have opened up to Atlantic communication, the greatest expanse of inland lake and river in the world. From the Straits of Belle Isle to Port Arthur the distance is 2,200 miles, but it has required only a little more than 500 miles of canal to make this waterway communicable. The total traffic through Canadian canals in 1936 amounted to over 21 million tons, according to the Transportation Branch of the Dominion Bureau of Statistics.

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#### No. 7 Iron

A little more than two hundred years ago today, the 7th of October, the first iron was smelted in Canada. The need for this common metal has resulted in an iron and steel industry which employs over 71,000 people.

Iron is rarely found in a pure form, in fact, pure iron is a chemical curiosity. The ore is combined with other minerals. Nearly all meteorites contain iron alloyed with nickel. Most of the ore used in industry contains one to seven per cent carbon and by treating it in different ways, products of very different physical properties can be obtained.

For instance, cast iron is exceedingly brittle and hard. Wrought iron and most types of steel are quite flexible and elastic. Steel by the way, is an iron product. Alloys are added to steel to produce special types such as tungsten steel, chrome steel, nickel steel and so on. Cast iron is used chiefly in castings; wrought iron in wire, electro-magnets and malleable iron, and steel has numerous uses, a few of which are structural steel, wire, nails, tools, springs and permanent magnets.

Iron ores have been mined in Canada in Nova Scotia, New Brunswick and Ontario but at present the iron industry of Canada depends upon imported ores. Millions of tons of ore are shipped from the Michipicoten district but there has been no great incentive to the development of the iron-mining industry in Canada. There are easily accessible and abundant supplies in the high-grade ores of Wabana, Newfoundland, and of the Mesabi range in Minnesota.

Sydney, Nova Scotia, depends upon ore imported from Newfoundland while the blast furnaces at Hamilton, Welland and Sault Ste. Marie, obtain their supply from the United States.

The ore is fed into giant furnaces along with coke and limestone and when the molten metal has run off it is known as pig-iron or crude iron. Pig iron is further heated and treated for steel and other classes of iron. Last year nearly  $1\frac{1}{2}$  million tons of iron ore were imported. Incidentally 7,000 tons of it came from Spain.



The production of pig iron amounted to 679,000 tons, Ontario producing about two-thirds of it, according to the Mining Branch of the Dominion Bureau of Statistics.

#### No. 8 — Pemmican

In early Canadian history we read of pemmican, a dish used by the Indians and fur trappers. This mysterious food, as made by the Indian squaws, for the Canadian Government at times, to serve as a winter emergency ration for the hardy men who travel and work in the Far Northwest, is merely a highly concentrated meat sausage, containing dried berries and the most refined of animal fats. When it is made commercially for Arctic explorers and police posts in the Far North, currants take the place of Saskatoon berries.

When asked how to make pemmican, an Indian squaw once said in a few words: "How make pemmican? Pemmican, dry meat, wa-chu-saga (jerked beef). Make like flour with stone. Melt fat. Mix dry meat, fat, saskatoons. Put in skin bag. Keep long time. Good!"

When manufactured commercially, the prime beef is cut into strips, dehydrated in a kiln until readily ground into a flour then mixed with beef suet, sugar and currants. Everything contained in this form of sausage is designed to provide body fuel and energy and properly prepared pemmican will keep indefinitely. The recipe for that prepared for Captain Scott's Antarctic expedition of 1904 called for 50 per cent pure lard.

Its chief use, of course, is an emergency ration in isolated areas. The extent to which the meat in pemmican is concentrated can be realized that in making it the full nutritive strength of a 700 pound beef carcass is reduced to a little over 100 pounds by evaporation before being compounded into pemmican. A single pound of this concentrated food has a food value equivalent to more than six pounds of fresh beef. It can be eaten raw, cooked with flour or oatmeal into a porridge or sliced and fried.

As little of this food is made now commercially, and only for special occasions, there are no figures available for its production. But while talking of concentrated beef, it might be interesting to note that in the slaughtering and meat packing industry, over 800,000 beefs are slaughtered annually. According to the Agricultural Branch of the Dominion Bureau of Statistics the annual consumption per capita of beef is about 67 pounds.

#### No. 9 — The Quest for Beauty

Now that October days are here and the holiday season is finished for most of the workers, Canada's ledger will be opened and carefully checked to see how much money has been spent in the quest of beauty and health by Canadians and people of other countries.

The National Parks contribute the bulk of the money received from holiday makers and last year their accounts showed a nice balance of \$125,000,000. Nearly 800,000 people visited the Parks to find out for themselves that the Dominion has an asset in her natural beauty which is unexcelled by any other country in the world. The number of motorcars entering the Parks rose by 20,000.

All told, the Canadian Parks cover an area of nearly 30,000 square miles -- very nearly the size of Scotland. The reason these Parks attract so many, is that their natural beauty has been unimpaired. Much money has been spent on the supervision of wild-life, the restocking of rivers with fish, their wardenship and hotels. Every type of scenery and facilities for every kind of out-door sport, from skiing to rambling, from mountaineering to boating are to be found in the Parks.

Banff seems to be the favourite. It covers 20,500 square miles and was visited by 143,000 people last year. Of course, this beauty spot had had a longer start than the others. Buffalo Park was second with 11,000 visitors.

The Parks in Alberta and British Columbia equal the area of Belgium and a third of Switzerland combined. The Waterton Lakes, linked with an adjacent United States Park, form the largest peace memorial in a turbulent world. They mark one hundred years of peace between two great nations.

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#### No. 10 Streets of Gold

The Yukon Territory at one time was the scene of great activity and from out of its boundaries have come stories of adventure, heartaches and success. At the time of the famous Klondike gold rush, Dawson became a city of about 40,000 population and we are told that prices rose sky high, particularly for food. Restaurants were charging "a buck for a bowl of soup" and \$2.50 for a bacon and egg "special". Now comes a story of the streets of gold.

After the recovery of the main gold content of gravel originally washed down from high levels above the Klondike Valley by a process of hydraulic operations, hundreds of tons of waste or "tailing" in which a trace of gold still remains were used to grade the roads in and around Dawson. Of course, the actual gold content is exceedingly small but nevertheless, the streets are literally paved with gold.

Now the population of that famous city has become a town of about a thousand people. But still the search for gold goes on. Instead of pick and shovel used by the early miners, huge dredges are in operation and the obtaining of gold has become an art.

A recent experiment has proved of value in the Klondike area. The big dredges in their digging pick up large quantities of what was once considered junk; bird shot, bullets, cartridges, odd pieces of metal, in addition to the occasional watch, ring, knife, and guns of all shapes and sizes. All this is now being treated to recover any valuable metal. As a result of this experiment pure gold worth several hundred dollars was recovered.

From out of the Yukon Territory last year, came a shipment of over 50,000 fine ounces of gold. This was an increase of 14,000 ounces over the 1935 production and was the result of expansion in placer mining operations.

The above is based on figures from the Mining Branch of the Dominion Bureau of Statistics.

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#### No. 11 Thanksgiving Day

Today we are mindful of the good things in life which we possess; health, friends, food, clothing and a country of natural wealth and beauty, where at the present time, although we hear the rumbles of strife, we feel fairly secure.



But this atmosphere of peace and prosperity was not always in existence in our land. The early pioneers had to fight their way inch by inch to obtain a living from the virgin bush and battle with the unaccustomed climate which caused them to suffer heavy losses in outbreaks of cholera, smallpox and other diseases. Then, too, there were times when different nations tried to claim the new land and war was the result and even civil strife.

Naturally there were times when the hearts of these early settlers were overflowing with gratitude; when peace was restored, when their freshly turned sod produced food and everyone was enjoying good health, and we find that thanksgiving days were set apart for each occasion. Sometimes two or three Thanksgiving Days occurred in one year.

The first official Thanksgiving Day in Canada was in 1763 when peace was celebrated between Great Britain and France. Following that there were official thanksgivings for victories at home and abroad, for the cessation of the cholera, for the restoration of the health of the Prince of Wales in 1872 and on the occasion of Queen Victoria's Diamond Jubilee.

Later the American custom of the Pilgrim Fathers of setting a special day aside for thanks for the harvest was adopted by the people of Canada. Usually it occurred in October or November. But at the conclusion of the Great War, November 11 was chosen as Thanksgiving Day in Canada. Then, after those who had fought in the War petitioned the Canadian Government to dissociate Thanksgiving from the signing of the Armistice, Thanksgiving Day was again changed to October and November 11 was kept as a day of remembrance.

That is why Canada now celebrates Thanksgiving in October while our neighbours to the south, where our present custom of rejoicing over the harvest originated, keep the festival in November.

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#### No. 12 — Radios for Schools

A very short time ago some boys and girls did a thing their fathers and mothers had never done. They couldn't go to school because the schoolhouse was closed to prevent the spread of infantile paralysis, so they had their lessons at home by radio.

But they were not the first people to receive instruction this way. As early as 1929 the Manitoba Department of Education was giving late afternoon broadcasts on high school subjects and Saskatchewan began to do the same two years later. The subjects selected were: English, History, Mathematics, Science, Music and French and were of particular help in small schools where the teacher cannot find time to cover the course thoroughly with the pupils who are preparing for high school.

Although many educational programmes are delivered after school hours, there are fourteen city school systems which receive regular programmes during school hours and 51 who receive them occasionally. Outside the city 92 schools receive radio programmes regularly and 835 occasionally. About two-thirds of them are one-room schools and there are relatively more in Alberta than in any other province. Ontario and Alberta together account for more than 80 per cent.

Many of the radios are owned by the teachers. Sometimes commercial firms or public service organizations loan them to the schools. One large firm in the West, for instance, installs radios in the city schools for about three weeks at Christmas

time to enable the pupils to take part in carol singing conducted daily from the store.

In England and Wales there are now over five thousand listening schools and 456,000 pamphlets to accompany the broadcasts were sold to listening schools in the autumn term. In Scotland over 700 schools registered. A survey of the city schools in the United States showed  $11\frac{1}{2}$  million radio receiving sets. The experiment is being tried out in Australia also.

The majority of school inspectors and superintendents indicate to the Bureau, through the Educational Branch, their belief that more use could be made of radios in Canadian schools with advantage to the pupils.

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### No. 13 Use of Films in Canadian Schools

The Report of the Scottish Education Department for 1936 says: "Great Britain has been less ready than some other countries to accept the film as an aid to education, but interest in the subject is steadily growing." The same might be written of Canada. Fewer than 200 motion picture projectors in the schools of Canadian cities are to be compared with more than 10,000 in the city schools of the United States. Allowing for population differences they are about four times as numerous in the United States as here, and in France seven or eight times as numerous. Among the other countries, the German, Italian and Russian governments appear to have found school motion pictures of particular value. The German Government is reported to have placed 7,700 projectors and 32,000 films in schools last year.

Canadian schools obtain more films from industrial concerns, especially the transcontinental railways, than from commercial distributors. Government Departments, Dominion more than provincial, are also frequently the source. Films are most often used in the teaching of Geography, Science and History; and school officials say they would like to have more historical films than any other kind. Two Departments of Education, Nova Scotia and Quebec, are establishing film libraries, while in Alberta this service is being conducted by the Extension Department of the University.

The most common reasons given by Canadian school authorities for not using motion pictures more are as follows, in order of frequency: first, the lack of money to spend; school revenues generally have not recovered from the losses since 1930 when salaries were cut and other economies effected.

Second, lack of information as to where desirable films can be obtained. Third, teachers are insufficiently trained in the use of films. Some teacher training institutions report that training is now being given. Fourth, available films are not suited to the course of study; in this connection some say that they know where suitable films can be rented in the United States, but that customs regulations do not allow them to do so. Fifth, the lack of electric power is an obstacle to the use of sound pictures in small schools; but for silent pictures storage batteries are sufficient.

This information was obtained from the Educational Branch of the Dominion Bureau of Statistics.

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## No. 14 -- Granite

Granite is a very hard rock which has been formed deep below the surface of the earth under high temperature and pressure. Its name most likely came from the Latin word "granum" which means "grain" or it may have some relation to the Italian "granito" meaning "gritty". However, the rock is of a crystalline granular nature, composed principally of quartz, feldspar and mica. Granites are usually red, pink or grey, depending on the colour of the feldspars. Dark green colours are made by large quantities of black mica or hornblende.

All the constituents of this rock, except mica, are as hard or harder than steel, making it difficult to cut and polish. How the early Egyptians worked with it is a mystery. They polished it in a way that cannot be excelled with all the appliances of modern science; and they covered some of the blocks with delicately cut hieroglyphics. At the present time the rough blocks from the quarry are cut by special steel saws which progress at the rate of about four inches per hour. The difficulty of preparing the stone makes it expensive but this is counterbalanced by its durability.

A large proportion of the granite produced in Canada is used for foundations for highways, for permanent ballasting of railway road beds, for large concrete structures, for filling breakwaters and for bridge piers. Black and grey granite are in demand for monumental purposes. Granite for this purpose is produced in the Maritimes, Quebec, Ontario, Manitoba and British Columbia. Some is imported from the United States and Europe. Many of the buildings in the Scottish city of Aberdeen are of granite and the streets used to be paved with it. It is called the Granite City.

The upward turn in the building industry is reflected by an improvement in the granite industry. The Canadian production in 1936 was 856,000 tons as compared with 326,000 tons the year before, according to the Mining Branch of the Dominion Bureau of Statistics.

## No. 15 -- Gelatin

Gelatin is a familiar protein used as a food in jellies and soups, being readily digested and absorbed. It is extensively used in the manufacture of ice cream to prevent the formation of large ice crystals and in the confectionery trade in the preparation of such sweets as "marsh mallows". Gelatin is also used in the preparation of photographic plates, films and papers, for coating pills and making capsules and for making culture media for bacteriological work. A new use that is rapidly assuming importance is to prevent cultural buttermilk from wheying off.

Gelatin is derived from substances in the supporting structures of vertebrate animals, such as the long fibres in the tendons, cartilages, bones, skin and white connective tissue by boiling with water or dilute acid. It occurs in commerce in varying degrees of purity; the purer form obtained from skins and bones is named gelatin. A preparation of greater purity is "patent isinglass", while isinglass itself is a fish gelatin, a white semi-transparent substance prepared from the air-bladders of sturgeon, cod, etc. Less pure forms constitute glue and an aqueous solution appears in commerce as size.

The manufacture of gelatin has to be very carefully done, mineral matter must be removed and any trace of bacteria which might cause decomposition must be

eliminated. The boiling process has to be conducted with great care otherwise the gelatin itself would be decomposed. The finished product is a nearly colourless, transparent substance, flexible and horny when in the normal dry condition. Immersed in cold water, it swells to many times its normal size. When the swollen gelatin is heated to 35 degrees centigrade it goes into a solution. If the solution is allowed to stand at 10 degrees centigrade, it sets to a firm jelly. This is the most characteristic and important property of gelatin.

The United Kingdom sold to us 868,000 pounds of gelatin for food purposes last year, Australia 560,000 pounds and Belgium 484,000. Altogether Canada imported over two million pounds of edible gelatin. Most of the empty gelatin capsules for medicinal and pharmaceutical preparations came from the United States.

This information is based on figures from the External Trade Branch of the Dominion Bureau of Statistics.

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#### No. 16 -- October Birthstones

October is one of the few months which have an alternate birthstone. Opals are most commonly recognized as belonging to October but another gem which is little known or appreciated is the tourmaline. The opal, however, is the more popular.

Many people today believe the opal an unlucky stone. This idea seems to have originated in the last century when Sir Walter Scott wrote a novel in which the heroine owned an opal that brought bad luck and calamity. Previous to that time, it was considered one of the luckiest stones and the symbol of hope.

This colourful stone has in reality no colour of its own but nature has given it the trick of catching the light and breaking it up into many colours. The "Burning of Troy" so called because of its many red flashes, was a magnificent fire-opal which belonged to the Empress Josephine and is one of several handsome opals among the French Crown jewels. Another interesting thing about these stones is that they contain water which has a tendency to make the opal dry out and crack through evaporation. An occasional bath in olive oil is said to assist in preserving them.

The tourmaline is a hard gem and has a great range of colours due to its complicated chemical composition. It has more hues, shades and tints than any other gem stone and is therefore extremely valuable in costuming. Sometimes two colours are contained in one crystal and gem stones can be cut so that half of them are pink and their other half green.

Previous to 1703 this stone was not recognized as a distinct species. For centuries its varieties must have been confused with rubies, sapphires, emeralds, topaz and amethysts. In India the natives still call the red variety of tourmaline a ruby. For many years tourmalines were sent from California, now the chief source, to China where they were cut or carved into jewels and ornaments and then reimported into America as "Chinese" tourmaline.

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#### No. 17 -- Canada's Golden Future

Canada is now third amongst the world's gold producers. Her position may be regarded as enviable at the present time and full of unusual promise for the future. Insofar as competition with other countries is concerned, Canada is well placed



because she has a wealth of favourable areas accompanied by all the natural and essential conditions, such as power, transport, accessibility, labour, materials and so forth, that must ensure for her a high place in the gold industry.

The hunt for this glittering metal is a great incentive for opening up remote territories. It gives employment to railroads and other methods of transport. Indirectly capital is brought into circulation because of the outlay involved in exploration and development. Taxation both at the source and from the income to the individual adds to the country's revenue. With a view to stimulating exploration and development of mineral resources in Canada, certain exemptions from income tax were granted in May, 1936, to new or re-opened mines coming into production. There can be no denying the fact that in Canada new territories have been opened up more unexpectedly by the search for gold than from any other cause.

While exploring for gold, the discovery of other metals is frequently incidental, but at times may be of equal or greater importance than the gold for which the prospectors were looking.

Last year the production of this metal made an all-time high record in Canadian gold mining. The new or primary gold produced was close to four million ounces worth over \$13,000,000. South Africa produced about three times as much, Russia nearly twice the amount and the United States about the same quantity as Canada.

The Mining Branch of the Dominion Bureau of Statistics supplied the figures for this information.

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#### No. 18 -- Rubber Fenders

Rubber fenders are becoming standard equipment on an increasing number of London buses we are told. The durable and flexible fenders developed in England are made of moulded or pressed rubber. So far, they have been made primarily for buses but it is likely they will be made for passenger cars in the near future. Similar fenders have been used on buses made in the United States and several automobile manufacturers are expected to show cars equipped with rubber fenders at the forthcoming International Motorcar Exhibition. It is reported that, based on weight and price, rubber fenders are comparable to 18 gauge steel.

At the present time there is no record of the number of fenders made in Canadian industries. Each automobile plant has its own special die for stamping fenders for each particular need of the certain style of car it produces. These dies, by the way, are very expensive and only the automobile factories can afford to use them. Until a short time ago, most of the fenders were produced in the United States but now automobile firms in Canada can make their own.

However, some idea of the number of fenders made may be gained by knowing that last year the total number of automobiles, both passenger and commercial, made in Canada amounted to 281,000. That would mean over one million fenders. At this rate, if all the fenders made in the world during 1935 were put into a pile there would be over 20 million of them.

Whether bumpers and bumperettes would still be necessary should rubber fenders take the place of steel is a question. Their production amounts to over \$500,000 in a year, according to M. M. & C. Branch of the Bureau of Statistics.

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## No. 19 -- Man-made Sponges

The name sponge makes us think of tropical countries where dark-skinned divers walk among the luxuriant growth of the sea-floor, searching for the animal which gives its skeleton to make white skins whiter. Fixed to rocks on the sea-bed, these live sponges look very different from the ones we know. In their natural state the framework of cells is covered with a jelly-like substance. They are, so to speak, all mouth living on the water which passes into their body through the small holes of their surface and out again through the larger holes.

The first artificial sponges were made successfully from rubber. Unlike the natural article the rubber sponge was able to fit into corners because of its rectangular shape, an important factor in cleaning windows, for example.

Now along come experimental laboratories with another new sponge, one which scientists have made from spruce trees. Not only can it fit into corners but its texture is so soft and free from grit that it is claimed it cannot hurt even a baby's delicate skin nor the wet emulsion of a photographic negative.

This sturdy and versatile newcomer of chemical ingenuity is said to bid fair to supersede a host of diverse odds and ends used for cleaning purposes. Being unaffected by chemical reagents, such as mild alkalies and acids, it finds use readily in many industrial operations for which previously there has never been a wholly satisfactory absorbent material. When it is dirty, the cellulose sponge can be immersed in hot, soapy water or sterilized in boiling water if necessary and will come out as good as new. The artificial sponge is said to be exceedingly absorbent, taking twenty times its own weight in water.

According to the External Trade Branch of the Dominion Bureau of Statistics, sponges of marine production come chiefly from the British West Indies, such as the Bahamas, the Windward and Virgin Islands, to the Canadian market. Over \$52,000 worth of sponges were imported last year, those from the West Indies were valued at close to \$40,000. The rest came from the United Kingdom and the United States.

## No. 20 -- Chops in China

A meaty pork or veal chop is an appealing dish, but it might be interesting to know that there are such things as chops but no meat. Word comes from China that "chop" means the attractive label or trade mark upon a tin of fruit or vegetable.

In making sales of canned goods to the Chinese population the "chop" is of the greatest importance because a considerable proportion of the buying public cannot read English. The purchase of a canned product is made chiefly on the basis of price. If the product proves satisfactory, the buyer, who associates a particular requirement with a certain size, shape or colour of container, will always insist on a tin with the same label. For this reason large labels brightly coloured are usually employed by Canadian packers.

The Chinese buyer is conservative and favours long-established brands. A tin of peas, for instance, which has been selling in the market for years and is well known by its "chop", will continue to sell even if slightly higher in price than a similar and cheaper but still unknown line. Eventually, the cheaper line may sell more widely, but this will be the result of the new "chop" becoming known and appreciated as a similar article at a better price.



The variety of fruits and vegetables canned in Hongkong and South China is not extensive, being confined to peas, beans, water chestnuts, bamboo shoots, lichees and a number of typical Chinese fruits and vegetables. However, the production is large and, in addition to supplying the domestic markets, meets the demand from Chinese domiciled in other countries.

Imported canned peaches and pears are the largest sellers in the canned fruit lines, while in canned vegetables the greatest demand is for peas, pork and beans and sweet corn. Imports of Canadian canned fruits into Hongkong last year were valued at nearly \$5,000 while canned vegetables were valued at \$14,000.

The foregoing figures were supplied by the External Trade Branch of the Dominion Bureau of Statistics.

#### No. 21 -- The Eighth Wonder of the World

Pitch is a solid, black resinous substance obtained from boiled tar and we are told that asphalt is mineral pitch. Its use is chiefly for pavements and covering roofs. Sir Walter Raleigh tells of the Pitch Lake of Trinidad, the most notable source of mineral pitch, in the following words: "There is that abundance of stone pitch that all the shippes of the world may be therewith laden from thence, and wee made triall of it in trimming our shippes to be most excellent good, and melteth not with the Sunne as pitch of Norway".

This Pitch Lake, we are told, is the eighth wonder of the world. According to legend, a tribe of Chayma Indians killed the hummingbirds in large numbers, ate them and bedecked themselves with the plumage. These feathered jewels were believed to be the souls of the departed and the "Great Spirit" caused the earth to open and the entire village disappeared. The cavity was filled with asphalt. Scientists tell us that the lake had its origin many thousands of years ago during certain general earth movements when fractures or faults were made in the vicinity of Trinidad. One of these breaks is deep enough to reach a large oil and gas reservoir. The surface is constantly in motion which is, of course, very slow but any object placed on its surface will shift its position from day to day.

During the month of February, in 1928, a tree believed to have been buried from four to five thousand years ago, came through the asphalt, rose to a height of about ten feet and then disappeared.

However, it is possible to walk on the Lake. Gangs of barefooted workmen dig out huge chunks and send them off in trucks on a very light railway which is moved frequently. It is remarkable how the asphalt supports the ties and rails, especially when the loaded cars often passing in a continuous line weigh no less than 1000 pounds each.

The holes which are left at the end of the day reach the depth of about three feet but by the next morning are filled up again. The Lake is solid asphalt perhaps two hundred feet deep at its lowest point. Borings show that in consistency the asphalt is practically the same throughout.

From this eighth wonder of the world according to the External Trade Branch of the Dominion Bureau of Statistics, Canada imported over 300,000 pounds of solid asphalt last year. The home production amounted to 35 million gallons.

No. 22 - Canada's Imports of Peanuts

Ground nuts, the fruit of a tropical to sub-tropical annual plant are so called because the nuts mature in the ground; they are also known as earth nuts, peanuts --- because the kernels grow inside pods like peas --- and monkey nuts. The nuts are used for human food, as food for live stock --- chiefly pigs which are turned into the field to do the harvesting --- or crushed for oil and oilcake. All but a small proportion of the ground nuts entering world trade are destined for the production of oil. India, China and West Africa, along with the United States remain the principal sources of supply.

Canada differs from most other industrialized countries in that she has only a small seed-crushing industry and, apart from linseed, imports almost all the vegetable oils she utilizes. However, there were nearly 36 million pounds of peanuts imported last year, China supplying 31 million pounds, British India nearly three million and Dutch East Indies over one million.

Australia is increasing her production of ground nuts and in 1931 a trade agreement was made with Canada which will give the Australian market the preference when the Commonwealth is able to supply all Canada's requirements. At present there is a duty of one to two cents per pound on ground nuts imported from other than British Empire countries but this preference has not yet resulted in any appreciable import from Empire sources.

Canada's cattle, sheep and pig population supplies much of the animal fats which form more than one-half of the oils and fats used in the manufacture of soap in Canada and limits the consumption of vegetable substitutes. Nevertheless, it is clear that the great bulk of the ground nut oil imported is crude oil for refining for edible purposes; the amount imported last year was 653,000 cwt. and came from the United Kingdom, China and some from the Netherlands. Oil for the manufacture of soap or for canning fish was 544,000 gallons. Last year's import of this particular item was only one half that of the year before, that from China dropping from 383,000 gallons to 41,000.

The External Trade Branch of the Dominion Bureau of Statistics furnished the above figures.

No. 23 - Flax, Hemp and Jute

Plants are used for clothing as well as for food and people have learned how to get the longest and strongest fibres from various parts of them. Flax, hemp and jute come from the plant stem, while cotton comes from the seed fiber and henequen and abaca or Manilla hemp, are from the leaves. The removal of the fibers from the woody core of the stalk is a disagreeable and difficult process and has been instrumental in limiting production to regions of abundant and cheap labour.

Flax growing in the British Isles probably dates back to the Roman occupation. The British government in 1532 compelled all persons holding tillage land to sow at least one quarter of an acre with flax for every sixty acres occupied. Later a penalty of £5 was imposed if the farmer didn't grow one acre of flax for every 60. Bounties were paid on the importation of flax and hemp from the Colonies. In fact, efforts were made to encourage the Colonies to produce flax into the nineteenth century when flax growing on a large scale was tried in Ireland. This attempt failed due to unfavourable climatic conditions as well as to the large quantities of cheap



Russian fibre which came into the British market. Russia contributes some 60 per cent of the world's supply of flax today. Japan is the only country outside of Europe that is important in the cultivation of flax for fibre.

Hemp has been used for sails and ropes for ships for centuries. The word canvas is derived from the Arabic name for hemp. At one time hemp was grown in the British Isles but its cultivation has disappeared. This fibre was considered by the early settlers in the United States as the most important of all products of the new settlements save bread corn, because it provided one half of the clothing for the winter season and practically all of it for the summer. The important world producers of hemp are Russia and Italy.

About 90 per cent of the world's jute crop is grown in India. With the exception of cotton, jute is the most used of all the vegetable fibres. Is the cheapest, the weakest but the most easily spun of the stem fibres. It has replaced hemp in many temporary uses such as coverings for cotton bales and bags for grain, coffee and sugar.

Our total imports of flax, hemp and jute products amounted to  $9\frac{1}{2}$  million dollars last year according to the External Trade Branch of the Dominion Bureau of Statistics.

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#### No. 24 -- Flax Produced in Canada

Two types of flax are produced in Canada. One type is cultivated for the production of fibre as used in the manufacture of linen, the other type is grown for the production of flaxseed from which linseed oil is extracted. Fibre flax has longer straw with fewer branches and is more suited to moist climates. Ontario and Quebec grow a relatively small area of flax for fibre. The seed type has shorter straw, branches freely, and is more suited to a moderately dry, sunny climate. These short straws may be used as tow in the production of rugs, matting, towelling, insulating board, building paper and upholstering types of furniture.

About 90 to 97 per cent of the flax grown in Canada is used for its seed, Saskatchewan being the greatest producer.

Production dates back to pioneer days, as early records show that in 1720 New France produced 55,000 pounds of flax seed. The ability to yield well on newly broken ground and the absence of weeds in the recently developed areas contributed to the extension of the flax acreage. By 1912, the climax in production was reached when over two million acres were planted in flax. Twenty years later the lowest point was made when only 244,000 acres were planted. This year the acreage in flax for seed amounted to slightly over 400,000 acres.

Compared with the normal consumption of from two to two and one-half million bushels, this decline has tended to change Canada from an exporter to an importer of flaxseed. Last year over one million bushels were imported. The paint manufacturer uses the greatest amount of raw linseed oil, about  $7\frac{1}{2}$  gallons for every 100 pounds of white lead. Thousands of gallons are used for printer's ink on newspapers and smaller quantities for the manufacture of oil silks and oil clothing worn by sailors and fishermen. Over 25,000 gallons are consumed annually by the soap industry.

With the return to better conditions in the building trades, an increased demand for paints will reflect an increase in the use of flaxseed for linseed oil. Although flax is not as easily grown as wheat or other grains and must be marketed with greater care yet the Canadian flax is of excellent quality and should find a greater place in world trade.

The above is based on information received from the Agricultural Branch of the Dominion Bureau of Statistics.

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#### No. 25 -- The Discoverer of Insulin

Fourteen years ago today (October 25) Sir Frederick Banting received the Nobel Prize for the discovery of insulin. A recent session of the American Chemical Society at Rochester, New York, made public the following information regarding this discovery.

Sir Frederick Banting, the great Canadian discoverer of insulin, was offered only about one dollar for the results of his work. As a medical man he could receive no more than the nominal dollar being paid for the patents of his process, but even this he refused. Nor would any of his four associates take a cent, although they themselves were not medical men. All the Royalties have gone back into further research work.

Now, insulin is used in the cure of diabetes. It is a substance extracted from the pancreatic glands of oxen and reduces the amount of sugar in the blood. The name is derived from the collection of cells in the pancreas known as insulae or islets.

The latest figures available show that close to 1,500 people died of diabetes in the year 1935. The majority of them were females. Children under five years of age were the fewest victims, the greatest toll being men between 70 and 74 years of age and women between 65 and 69.

The disease carried off as many people as small-pox, scarlet fever, whooping cough and diphtheria combined. So today, we turn our thoughts to a Canadian who, with his assistants, is doing much for mankind.

This information is based on figures from the Vital Statistics Branch of the Dominion Bureau of Statistics.

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#### No. 26 -- Turnips for the United States

The United States is the only important market for Canadian turnips. Cuba took some shipments in 1934 and 1935 and Newfoundland, the West Indies and Bermuda are regular importers of smaller quantities, but exports other than to the United States are insignificant.

Two factors affecting this trade are first, as would be expected, the price quoted from Canada, second, an unusual one which is seldom thought about by the general public when talking of trade, the weather. Turnips are essentially a cold-weather vegetable, and during warm periods, the demand slackens considerably and vice versa. Another factor, though of lesser importance, is the potato market. In years of surplus potato production, low prices might have a slight effect towards a reduction in the consumption of turnips.



In the United States the local production of turnips is unimportant as far as restricting the outlet for the Canadian product is concerned but it may be assumed that there is a fairly general distribution of the crop throughout the States. New Jersey is probably the most important producer.

However, the large cities like New York, Boston and Chicago look to Canada for their main supplies. Philadelphia was recorded as receiving 102 carlots last year, largely for the manufacture of canned soup.

Certain markets prefer large turnips, such as New York and Pittsburg, where four to six-inch turnips are desired. Boston requires somewhat smaller sizes, while Philadelphia and Cleveland demand them half as large as those for New York. Waxed turnips from Ontario command top prices.

According to the Agricultural Branch of the Dominion Bureau of Statistics, Canada produced 38 million bushels of turnips last year. Of this amount over two million bushels were sent to the United States.

#### No. 27 -- Air Pollution

Up and down the country there are to be seen very tall chimneys, especially in or near industrial centres. Many of them are very old and some of them, after the plants with which they were connected had been abandoned or dismantled, were left intact as reminders or memorials of a once thriving industry. These chimneys, usually built of the finest brick obtainable ware, in many cases, works of architectural art, beautiful on the landscape. A notable example stands on a little promontory on the Ottawa River near the Canadian capital.

There are several reasons why these chimneys were built so tall. One was because of the danger of sparks setting fire to adjoining timber or property. Shot up so high into the air, the sparks were more likely to be extinguished before they reached the ground.

But a greater reason than all was to carry poisonous gases and other pollutions as far away as possible from the nostrils of the people. Health was considered.

The smokes and fumes from domestic and industrial chimneys, exhausts from combustion engines, dust whirled up by vehicles, as well as other activities of man, all pollute the air we breathe. Exposure for a length of time to polluted air is detrimental to health and efficiency. Certain fumes and dusts are worse than others.

Air pollution is not a subject to which very many people have given special attention, but it is an important question. We are supposed to inhale  $37\frac{1}{2}$  pounds of air every twenty-four hours and, especially those who live in cities, are daily inhaling, along with that air, such things as dust, cinders, tarry matters, acids, carbon monoxide and micro-organisms.

It is impossible to place an estimate upon the amount of material and gas we inhale, along with the air, but an idea can be gained in a city stockyard. We are told that the lungs of a sheep just arrived from a farm far distant from the city, will be of a clean pink shade, but in a sheep which has been in a city for even a few days, the lungs will be darker in colour.

In some large cities the deposits of air pollution have been measured and estimated. London, the largest city in the world, deposited from the air 284 tons of impurities to the square mile and the figure for Toronto is pretty much the same.

Air pollution is closely connected with the problem of fuel economy. There is much more soot from the top of a domestic chimney, generally speaking, than from a factory chimney and a noted expert states that a large percentage of the fuel bill of the country is wasted through preventable inefficiency.

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#### No. 28 --- Canadian Textile Production

Textiles are fabrics produced by the weaving or knitting of materials into cloths. This is probably one of the oldest known industries; older than man, in fact, since it was practiced by spiders, caterpillars and birds before the advent of the human race. It is known to have existed in the Stone Age.

At the dawn of history, wool, cotton, silk and flax were being woven in the East with great skill. The Egyptians, the Chinese and East Indians had reached a high state of development in the making of textiles 3000 years before the Christian Era. In North and South America, the Mexicans, Peruvians, Incas and Mayas of antiquity produced textiles of beauty and fineness.

It is believed that the first textile article produced by prehistoric man was a mat or fishnet woven of rushes. This was followed by the basket. Today this industry is highly developed, Great Britain, the United States and Belgium being among the great wool manufacturing countries; while silk manufactures are especially important in Japan, China, France and Italy. The United States has large manufactures of cotton fabrics, so also has England. Linen is important in Scotland and Ireland.

The production of textiles and textile products constitutes an important branch of Canadian manufacture. In gross value of products it stands third with 13 per cent of the total for all industries. In number of employees it was second with 21 per cent. The value of the products was well over \$161,000,000, employing 12,291 persons in 1934, the latest year for which complete statistics are available.

This information comes from the General Manufactures Branch of the Dominion Bureau of Statistics.

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#### No. 29 --- Berry Boxes and Baskets

The wood of the poplar tree forms three quarters of that used in the manufacture of berry boxes, baskets and crates. The wood is valued in this industry for some of the same reasons that make it desirable for the manufacture of excelsior. It is soft, tough, clear, light in weight and colour, and tasteless and odourless. It is used mostly in making berry boxes. The wood is purchased in the log and cut into pieces of the required size from which the veneer is sliced. Birch is also used for that purpose.

Basket sides, rims and handles are made chiefly from birch, which is cut into lengths, steamed and placed in a lathe which peels off the veneer. Birch is valued for this purpose on account of its toughness and the fact that it peels smoothly.



The birch logs cannot be peeled down below a diameter of four or five inches. This leaves cores which are perfect cylinders of well-seasoned wood and can be used as rollers and plugs for paper rolls, although large numbers are sold or used for fire-wood when they cannot be otherwise disposed of. Light fruit crates are also made of peeled birch veneer. Spruce is used for basket bottoms and spruce ends are used for berry box bottoms.

There were 38,736,000 berry boxes manufactured to the value of \$128,000 in 1935, considerably exceeding the production in the previous year. They were made largely in the provinces of Ontario and British Columbia according to the Forestry Branch of the Dominion Bureau of Statistics.

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#### No. 30 -- Barrel Staves and Skis

When the snow begins to fly and covers the hills and valleys with a blanket of white, then is the time when many are thinking about a pair of skis. There are those who are fortunate enough to be able to purchase them but there are others who cannot. Ingenuity then has to enter upon the scene. The old apple barrel lends itself to the occasion. The staves are strong and tough, can be smoothed nicely and made very slippery; with a strap fastened on each stave the skis are all ready.

Then too during the warm summer months the barrel stave finds further use, sometimes having its place in the body work of a canoe or skiff; and it is a common thing to see a hammock made from the staves of a barrel.

The making of barrels is divided into two divisions -- slack and tight cooperage. Slack cooperage, or barrels made with comparatively loose seams, for the shipping of dry products such as lime, potatoes, apples, dry fish, flour, cereals, nails and other products which do not require a water-tight container, is probably the most important. Tight cooperage includes the manufacture of water-tight barrels only. These are mostly used for containing liquids, such as whiskey, beer, wine, syrup, cider, vinegar and oil. These are also used for pork and fish packed in salt or brine.

Elm, poplar, maple, spruce, beech, ash, basswood, birch and pine are a few of the woods used in the making of barrel staves, and in 1934, there were 44,947,000 feet manufactured to the value of \$363,175, according to the Forestry Branch of the Dominion Bureau of Statistics.

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#### No. 31 -- Any Hallowe'en Apples?

The apple and the pumpkin are popularly associated with Hallowe'en and so are black cats, bats and witches. It seems that the colour scheme black and orange for this celebration was instituted by the Druids before the Christian era. The yellow, or orange, had its origin in the fruits of the earth, for example the green apple or the green ear of the crop, which later became golden fruit or yellow sheaf. The black represents the sable robes of the Druid sorcerers who wore that colour in tribute to Saman, the lord of death and evil spirits who once a year went on the rampage on the eve of the feast.

The apple is more closely associated with the feast than any other fruit or vegetable. There is a special reason for this. In pagan times, at the festival of Pomona, the goddess of fruit, trees, nuts and fruits, particularly apples (poma)

played an important part. Apples were distributed as gifts and Canadian boys and girls who go from house to house asking for Hallowe'en apples are doing exactly what children did in other countries three thousand years ago.

One thing that many a youth in Canada has improved upon is the Jack-o'-lantern. In Europe the humble swede turnip was used whereas a big, orange pumpkin is much better and not only makes an excellent lantern but can also be served as golden-brown pies.

In Ireland, even today, Hallowe'en is known as Oidhche Shamhna, the vigil of Saman. In Scotland, bonfires, otherwise known as baalfires, still are part of Hallowe'en celebrations, a relic of the worship of Baal. Some cynics declare that the evil spirits of old Druidical times still exist in the shape of thoughtless youths who overstep the mark of pure fun and cause injury to persons and damage to property.

Maybe this Hallowe'en will see more boys and girls ducking for apples at school or at parties and more people able to give away the Hallowe'en fruit, because this year's apple crop is going to be about one million barrels greater than last year's. The Agricultural Branch of the Dominion Bureau of Statistics estimates that five million barrels of apples is what Canada's orchards have produced in 1937.











Canada Statistics, 1937

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DEPARTMENT OF  
TRADE AND COMMERCE



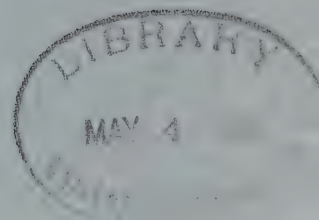
**A FACT A DAY ABOUT CANADA**

FROM THE

**DOMINION BUREAU OF STATISTICS**

**NOVEMBER 1937**

**FOURTH SERIES**



Published by Authority of the HON. W.D. EULER, M.P.  
Minister of Trade and Commerce

Price 25 cents per annum



### Contents

- |                                     |   |
|-------------------------------------|---|
| 32. Bonds of Steel.                 | 47. Registered Money.                   |
| 33. The Graveyard of the Atlantic.  | 48. Home Sweet Home in Canada.          |
| 34. A Future Fur Coat.              | 49. Where Do You Work, John?            |
| 35. International Ties.             | 50. Canadian Potteries.                 |
| 36. Languages in High Schools.      | 51. The Potter.                         |
| 37. Treaty Payments.                | 52. Oil from the Maritimes.             |
| 38. November's Birthstone.          | 53. A Trout Nursery.                    |
| 39. Private Schools in Canada.      | 54. A Globe Trotting Industry.          |
| 40. The Mop.                        | 55. A Rainbow in the Chimney.           |
| 41. Up in Smoke.                    | 56. Natural Resources of Japan.         |
| 42. Who Were the Canadian Soldiers? | 57. Selling Canadian Products to Japan. |
| 43. Canada's National War Memorial. | 58. Canada's Trade with Japan.          |
| 44. Ups and Downs of Life.          | 59. Coronation Memories.                |
| 45. Radium.                         | 60. Tomato Juice for the Miners.        |
| 46. Honour for Dr. Craigie.         | 61. "My Heart's in the Highlands"       |

James Muir,  
Editor.

from the

Dominion Bureau of Statistics

No. 32 -- Bonds of Steel

A little over 50 years ago, the first Canadian Pacific train left Montreal. When one thinks of the mass of population seething about the platforms of Montreal's stations now at train time it seems hard to believe that this incident happened such a short time ago.

But Canada has travelled far in the matter of transportation in recent years, for, until the year 1785, the methods in vogue were almost as primitive as they were 250 years before when Jacques Cartier sailed up the St. Lawrence. Canoes, rafts, flat-boats, barges and small sailing craft, the horse and mule, the oxcart and covered wagon and a few stage coaches were the only means by which people and property could be transported.

The real start in railway construction began at the middle of the last century. Many short railways were in existence but it became necessary to stretch bands of steel from coast to coast. Railways had much to do with Confederation. When the World War began Canadian railways spanned the continent by means of six different routes. The mileage in Canada within a century increased from 16 miles to over 42,000.

As the railroads pushed ahead of the settlers, thus becoming colonization roads or linking up thinly populated districts, the private owners found that they needed financial assistance. Thus it became necessary for the Dominion, Provincial and even municipal governments to extend some sort of help. In the early days grants of land other than right of way were made and another form of assistance was a bonus of a fixed amount per mile of railway constructed.

As the land-grant method became impracticable when the country became settled, aid in the form of cash was given, such as subsidies per mile of line, a loan or a subscription to the shares in the railway. A more recent type of assistance given to private railways is by guaranteeing their bonds or of the interest thereon.

At the end of 1935 the aid given to railways had amounted to \$178,000,000 from the Dominion, \$33,000,000 from the Provinces and \$13,000,000 from the municipalities. Land grants had reached the total of 47,000,000 acres and railway bonds guaranteed are over \$817,000,000 according to the Transportation Branch of the Dominion Bureau of Statistics.

No. 33 -- "The Graveyard of the Atlantic"

Sable Island, a low-lying piece of ground, lies 118 miles southeast of Halifax, Nova Scotia, and is familiarly known as "The Graveyard of the Atlantic". It consists of two parallel sand ridges with a lagoon between them. The sand bars extend several miles from each end of the island.

Since 1873, the Canadian government has built three lighthouses on Sable Island, two of which have been swept away and the third undermined, as the island is gradually sinking. Less than a century ago, its length was 40 miles, but at the present time it is 18 miles long with sand hills reaching a height of 100 feet. In 1901, over 80,000 trees were planted to check the shifting of the sands.



In addition to two first-class lighthouses, watch-towers and life-saving stations are maintained along this dangerous section of the Atlantic. In clear weather the entire coastline is under observation from the lighthouses and watch-towers and in fog or thick weather, mounted men patrol every mile of the island.

Another well-known lighthouse is the one at Cape Race, on the coast of Newfoundland. It towers 180 feet above the ground and its flashing light of over one million candle power has been seen a distance of 76 miles. The optical apparatus and lantern weigh 42 tons. The electricity for the light is generated on the premises and the fog signal, which has been heard 45 miles away, is operated by compressed air. Four lightkeepers keep continuous watch day and night throughout the year.

There are thirteen lighthouses maintained on the coasts of Newfoundland and Newfoundland-Labrador by the Canadian Government to aid Trans-Atlantic shipping.

With approximately 50,000 miles of coastline along the Pacific and Atlantic Oceans, the Great Lakes and other lakes within the boundaries of the Dominion, extensive lighthouse service is necessary. It requires, during the season of navigation, 2,000 lights, 400 fog signals, 600 gas and signal buoys, 12 lightships, 32 radio stations, 9,000 unlighted buoys, beacons and day marks to prevent accidents.

According to Census reports, there are over 2,000 persons employed in the lighthouse service of Canada who know by experience that the price of safety for shipping is eternal vigilance.

#### No. 34 -- A Future Fur Coat

Out of the laboratories of the National Research Council at Ottawa comes an interesting bit of information. The staff working on chemical research has touched on many things from the saving of clothes in laundries to the preparation of wool. Now it indicates a possible future for buffalo hides in making ladies' fur coats.

Experimental work on the present but unsatisfactory methods of treating the skins has been undertaken in the tanning and dyeing processes. The dyed and plucked skins produced have a most pleasing lustre and appearance. Anyone who in the future possesses a coat from this animal will be surrounded more or less with an atmosphere of romance, for the buffalo has been the object of interest ever since the day when white men discovered this continent.

In the early history of our Dominion are accounts of the large herds of bison, popularly called buffalo, charging across the western plains and pursued by Indian hunters. At times these animals travelled in solid columns of thousands and tens of thousands. The Indians depended upon them for food, the fat provided tallow, the skins, clothing or tent and canoe covers and the hair, cloth. The slight hump was especially prized for pemmican. Continued hunting resulted in almost extinction of the species until both the United States and Canadian governments sought to protect them. As a result the herds have so increased that in Canada there are about 1,500 buffalo hides now available annually.

Last month two female buffaloes were shipped from Elk Island Park, Alberta, to the Dudley Zoological Society in England.

Should the buffalo enter the commercial market for fur-bearing animals, it would bring the total of animals for this purpose up to 22. Already the list contains such species as the badger, bear, beaver, coyote, weasel, fisher, fitch,

fox, lynx, marten, mink, muskrat, otter, rabbit, raccoon, skunk, squirrel, wildcat, wolf, wolverine and domestic cat.

Figures supplied by the Fur Statistics Branch of the Dominion Bureau of Statistics show that nearly five million pelts were used in the 1934-35 season and their value was nearly 13 million dollars.

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#### No. 35 — International Ties

The majority of articles and things we handle and see every day do not always strike us as being of any particular interest, but nevertheless back of every commodity lies some human interest. Maybe it is the fisherman who caught the salmon you had for lunch or the husky bushman who cut the tree for the paper you are reading. A story is told about the ordinary little grain of wheat which gives us a feeling of fellowship with other nations.

When the Pilgrims were visiting Vimy Ridge last year for the unveiling of the great Memorial, a casket of wheat grown there was presented to the Canadian Legion on behalf of the French Government by Marshal Petain. This wheat produced on Vimy Ridge, which Canadian troops immortalised for all time in the War, was to be planted in the Gaspé Peninsula where Jacques Cartier landed four hundred years ago. Thus the growing of these little, insignificant kernels of wheat will be a perpetual reminder of the tie of friendship between France and Canada.

Wheat also forms a friendly relationship between China and Canada, not only from a commercial angle but from the more human side of life. The farmer who watches the field of grain ripening under Canadian skies is also producing bread for little Hum and his sister in China.

For years the United Kingdom was the only country in the world which exceeded China as a market for Canadian flour. Before 1922 the value of the flour exported to China by the Dominion was negligible, but by 1929 the sales had topped the \$10,000,000 mark. They accounted for not less than 40 per cent of the whole export trade of the Dominion to China, and for 15 per cent of Canada's flour exports to the world.

Last year, according to figures supplied by the External Trade Branch of the Dominion Bureau of Statistics, 117,000 bushels of Canada's golden wheat went to help feed the teeming population in China, an amount about double that of the year before. Along with it went over 73,000 barrels of flour which brings us back to the thought that even hard-hearted little grains of wheat carry with them stories of joy or sorrow.

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#### No. 36 — Languages in High Schools

It is a common thing to hear boys and girls who have just entered high school trying to invent excuses why they should not 'take up' Latin, and occasionally they object to French. A report just issued by the Education Branch of the Dominion Bureau of Statistics gives some idea of the extent to which languages are being taught in our Canadian schools.

The predominant second language in the high schools of every province other than Quebec is French and about three-quarters of the high school students studying English are also learning French. The proportion is as high as two-thirds in every province.



That this situation is essentially Canadian, influenced in large measure by the place of the French language in the life of the Dominion, is suggested by the fact that in the United States less than one-eighth of high school students study French, and that in only one-fifth of the individual states is French the second language. Although usually it is a reading knowledge rather than a speaking knowledge of French that is gained, better understanding between the two language groups is fostered.

One half of the high school students study Latin which is much more than the number learning it in the United States. At one time United States students studied Latin in greater numbers but a steady reduction since 1910 has resulted in less than one-fifth learning the "dead language". It has been declining in Canada too, during this time, but not at as fast a rate.

Less than four per cent of Canadian high school students learn German; Spanish, which is offered as a subject in Ontario, Nova Scotia and Quebec has attracted few students. Only about 500 students in the whole country study Greek, most of them in Ontario. Classical Greek is given in the universities and the affiliated theological colleges give modern Greek.

A few students avail themselves of courses offered in Gaelic in Nova Scotia, Italian in Ontario, Icelandic and Swedish in Manitoba.

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#### No. 37 — Treaty Payments

Shortly after Confederation, the Indians ceded their title to the vast areas east of the Rocky Mountains to the Dominion government and in return were to receive annual gifts of cash with promises of assistance in agriculture, hunting, education and protection. The Indians were given special tracts of land known as reserves where they could hunt, fish and learn to farm. The coast Indians of British Columbia were also given reserves but no attempt to take away their title has been made and in the meantime they have become an important labour factor in the fisheries of the Fraser and Skeena Rivers.

The people on the reserves, estimated at around 123,000 in 1931, earn over six million dollars a year. In addition the Dominion holds in trust on their behalf something like fourteen million dollars, while schooling and numerous other services are given free. Fifty thousand of the Indians receive pensions under the terms of various treaties, the earliest being made in 1850 and the latest in 1930. The payment of these annuities, which amount to four or five dollars a head a year, is always made the subject of a definite ritual.

Early in February, notices are sent out notifying the Indians to gather at various points at a certain date to receive their annuity. Then a party of government officials starts out in seaplanes to cover a certain territory. For instance, the group covering Treaty 9 journeys across New Ontario, travelling from Ottawa to Fort Severn, Moose Factory and into Quebec to Nemaska and Neeskweskau, a total distance of some 4,000 miles.

In addition to making payments, questions regarding education, relief and numerous difficulties have to be investigated. The doctor is kept busy vaccinating, inoculating, examining and treating patients from the year before and others who have developed sickness or disease since his last visit.

Figures published by the Vital Statistics Branch of the Dominion Bureau of Statistics for 1935 show that there were over 4,000 little papooses born but over 600 of

them died before they were one year old. Altogether more than 2,400 Indians died in 1935; seven old ladies and four old men were over 100 years old.

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#### No. 38 --- November's Birthstone

The mellow, yellow light of an autumn afternoon and the golden brown of the dancing leaves are held imprisoned in the topaz, November's birthstone. A legend told by Pliny suggests that the name topaz came from the name "topazein", meaning "to seek" because the first locality in which it was found was an island, Topazas in the Red Sea, which was often surrounded by fog and difficult for sailors to find.

Contrary to the general idea, topaz is usually colorless or very pale in shade. Yellow hues of different degrees, from pale to a bright sherry tint, are common as are pale blue and pale green stones. The brownish-yellow stones from Brazil are altered to a lovely rose-pink by heating. The red, green, rose, pink, and violet topaz are very rare when found in their natural colour.

The Braganza, a stone of 1,680 carats, was once listed as the largest of the famous diamonds of the world but the fact now accepted is that it is not a diamond at all but a topaz. A colourless stone can be cut and polished in such a way as to make it look like a diamond, especially at night. These colourless gems are known sometimes as "Slaves Diamonds".

The topaz has a rare velvety body appearance which fascinates its admirers, and its wide range of pale colours offers a charming selection of birthstones to those born in November. When highly polished, it has a slippery feeling and when rubbed has the ability -- like amber -- to pick up pieces of paper. These qualities assist in determining the genuineness of the gem.

Brazil is the principal source of topaz while yellow and colourless stones are found in Ceylon. Fine blue stones come from Russia and California. Some of the less important sources are Scotland, Ireland, Africa, Australia, Japan and Mexico.

Our imports of precious stones increased over \$12,000 last year, according to the External Trade Branch of the Dominion Bureau of Statistics.

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#### No. 39 --- Private Schools in Canada

Most of our boys and girls attend public schools but some go to private ones. There are several reasons for wishing to have children educated in this way, sometimes because of religion, sometimes because of family traditions and often because it solves the question of boarding pupils away from home.

In England the public schools are private, that is they are not open to everyone, the pupils pay a tuition charge of \$500 to \$750 a year. What we in Canada call the public school is known as a "board school" in the United Kingdom. They are so-named because the local municipal Council or board votes the money to run them. Boys and girls are supplied free education until they are 14 years of age. A child may enter a board school at the age of five and he is said to be a member of the "infant department" until he is seven.

If the child is to go further in his studies after leaving the board school his parents must pay a fee. From this system we have become familiar with the name of



Eton, Rugby, Harrow, Aldenham, Uppingham and Worksop, famous public schools in England. The boys who attend them are between the ages of 13 and 19 and for the most part, sons of wealthy families. Some public schools date back more than 500 years.

In Canada, the private elementary and secondary schools have an enrolment of about 33,000 which is about two per cent of the number attending public elementary and secondary schools. Private schools are more numerous in Quebec than in the other provinces combined.

High school departments of colleges had 5,000 private students in attendance. Commercial schools, or business colleges, number about 140 in the eight provinces. They have recently had about 10,000 day students and between 4,000 and 5,000 evening students in a year..

The majority of private elementary and secondary schools in Canada are under Roman Catholic control and about one half their number are listed as non-sectarian. There are 25 controlled by the Anglican Church, half that number by the Lutheran and seven by the United Church. There are others under the jurisdiction of the Presbyterian, Seventh Day Adventist, Baptist, Hebrew, Hutterite and Mennonite denominations.

This information is taken from a bulletin issued by the Education Branch of the Dominion Bureau of Statistics.

#### No. 40 — The Mop

The next time you use a mop, probably this little story might lighten the household duty and give that particular weapon a personality all of its own.

Every year, in the city where Shakespeare was born, Stratford-on-Avon, there is a fair held called "The Mop". Like our own fairs, there are all sorts of amusements with fortune-tellers and side-shows. But in addition there are usually fine roasts — two oxen and three pigs — the fires for which are lighted about 6 o'clock in the morning. The mayor of Stratford opens the Mop and off it goes into full swing.

But this programme has greatly changed since the first Mops were held. The old custom served a very different purpose, more business than pleasure, and was a means for servants to obtain new employment or for people to procure new help.

In the autumn, a certain day was set aside for the Mop. The household servants who desired new homes went to the fair and employers and employees bargained and settled yearly wages. One sign that a woman was willing to work, and work hard, was her mop, for when she left her mistress the mop went with her. Sometimes the bucket accompanied the mop.

That was the big fair. Ten days later a smaller one was held called the "Runaway Mop". Servants or mistresses who were not satisfied with their bargaining at the big Mop had a chance to make readjustments.

The General Manufacturing Branch of the Dominion Bureau of Statistics tells us that last year there were 140,000 mops made in Canada. So when you use one of these useful articles, you may be doing your own housework but at least you have in your hand something in common with the English women of many years ago for the mop is the symbol of hard work.

#### No. 41 -- Up in Smoke

During last year a crop produced in Canada and valued at over nine million dollars was grown to be sent up in smoke. As it was tobacco, however, the loss was a substantial gain for in the conflagration there were about 125 million cigars, five billion cigarettes and 23 million tons of tobacco.

"Tobacco is a horrid weed; I like it." So begins the well-known doggerel about the famous species of flora known to botanists as *Nicotiana Tabacum*. Tobacco is a weed but one which demands expert knowledge of soils, fertilizers, if it is to be grown profitably. Hordes of insect pests, late frosts, sand blown about, all are bugbears of the planter.

The tiny seeds, which are no bigger than grains of pepper, are able to produce strong broad-leaved plants, four to five feet tall. They are planted in a greenhouse in soil which has been especially prepared and sterilized with steam to destroy weed seeds and fungi. In a couple of weeks time the young plants are peeping above the soil and in four to six weeks more are ready for transplanting. The seedlings are planted by hand, the distance they are set apart depending on the type of tobacco being grown.

Two months later the plants are nearly three feet high and the first flower-buds have begun to appear. These buds are picked off, with the exception of a few of the finest which are kept for seed, to preserve the growing strength of the plant.

About the middle of August the leaves begin to ripen. This usually begins at the bottom of the plant. In growing Burley and dark tobacco, the whole plant is cut down to the ground when the leaves at the middle have turned yellow, but in flue-cured tobacco the leaves are removed as they ripen.

Following the picking the leaves must be dried and cured before being baled up and delivered to the manufacturer. According to the General Manufacturing Branch of the Dominion Bureau of Statistics, there are 149 establishments in Canada making cigars, cigarettes and tobacco for smoking.

#### No. 42 -- Who Were the Canadian Soldiers?

We cannot forget the slaughtering of 60,000 of our young Canadians in the Great War nor the maiming of an additional 173,000. It does not make us hate other nations for they, too, lost heavily in man power, but it does force us to realize that men can be made to hate each other. But when the cosmopolitan nature of Canada's war dead is considered, we know that different races, creeds, and tongues can live as brothers.

Canada is a land of many racial origins. The Census Branch of the Dominion Bureau of Statistics gives 23 racial origins in Canada. The largest group is British, then French, German, Scandinavian and Ukrainian follow in order. When the war broke out, these various races rallied to the flag of their adopted land.

There were 156,000 English-born, 47,000 Scots, 36,000 Americans, 19,000 Irish, 5,000 Welsh and 3,000 Newfoundlanders. The enlistment in Canada of 1,200 Australians, 1,100 from British India, and 3,000 others from British South Africa, New Zealand, British Guiana, Tasmania, Fiji, Hong Kong, Isle of Man, Malta, the Falkland Islands and Aden, was rather remarkable. Among the recruits were men from most of the islands of the West Indies and others from seventy-five outlying spots in British Africa, along with 350 natives of South American countries, who claimed British ancestry.



In addition to the Empire-born and the American-born, there were 23,000 natives of continental Europe in the Canadian army. There were over 7,000 Russian-born and close to 6,000 Scandinavians, 2,000 from Austria-Hungary, 2,000 from Italy, 1,500 natives of France, 1,300 Belgians, 400 Roumanians, 400 Greeks and 260 Servians. Most remarkable of all was the line-up of 245 natives of Germany. Eight of the German-born and eight of the Austrian-born were officers. Every country in Europe was represented in the Canadian army. There were over one hundred Turks.

There were 700 Asiatics, 280 being natives of Japan and over one hundred natives of China. There were some from Arabia, Bhutan, Cochin-China, Siam, Siberia, Manchuria, India, Ceylon, Afghanistan, Persia and the Straits Settlements. There were thirty-two Africans.

Such was the cosmopolitan nature of the Canadian Army during the Great War. Armistice Day recalls these things to us.

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#### No. 43 — Canada's National War Memorial

The National War Memorial will soon be erected in Ottawa. This structure, occupying 35 large crates, was shipped from England in parts this year. It was fashioned by seven brothers and a sister in studios at Farnborough, Kent. It is the result of ten years' work.

When it was decided that Canada should have a memorial of her own in her capital city, architects and sculptors were invited to submit designs. Over one hundred entries were received, among them that of an English sculptor, Vernon March. Later he heard from his radio that a Kent sculptor, namely himself, had won an International competition for the Canadian War Memorial. He and his six brothers and their sister at once set to work on the full-scale design. That was in 1926, but in 1930 tragedy overtook the family, for Vernon March died. The work, however, went continuously forward, the brothers and sister basing their labours on the small soft-clay model made by their brother. It is now kept under a glass case in their home in Kent.

When completed, the memorial was erected temporarily in Hyde Park, where it made a deep and lasting impression on all who saw it, a silent reminder of the sacrifice made by 60,000 Canadians.

Consisting of a tall granite arch, surmounted by huge bronze figures of Liberty and Victory, the memorial symbolises the triumph of peace over war. At the base of the arch are 22 figures representing every branch of the war service hurrying towards the new dawn and leaving behind them an unlimbered gun. The only inscription on it is simply "1914-1918". All told, the memorial reaches a height of 70 feet.

Sculptures by the March family are already well-known in Canada. In Hamilton, for example, there is the famous memorial to the United Empire Loyalists, executed by Sidney March; in front of the Parliament Buildings in Victoria, British Columbia, stands the Provincial War Memorial, also the product of the March workshops, while in Orillia, Ontario, stands Vernon March's fine statue of Champlain.

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#### No. 44 — Ups and Downs of Life

How many of us realize the dependence of modern civilization upon vertical transportation or that the elevators of a great city, like New York, carry more passengers per day than all street cars, bus and urban railway services combined? The Empire State Building, is equipped with 58 main passenger elevators, designed and scheduled to transport 15,000 people between 5 p.m. and 5.30 p.m. daily.

Another surprise. In Canada there has sprung up a novel industry which not only supplies the domestic market but also exports its product to thirty-two foreign countries. And that particular product is steel doors for elevators, an important item when it is remembered that a modern elevator is just as good as its doors.

It began this way. When an architect in Shanghai, China, came to get doors for his 102 elevators in the great Joint Savings Bank Building, he had two things to consider. First they had to be fireproof, rot-proof, non-shrinking, unaffected by heat or humidity and impervious to vermin. Secondly, he had to design them in a way so as to fit in with the colour schemes of the fourteen different floors. So the Shanghai bankers came to Canada and in Hamilton they found doors — steel elevator doors upon which Canadian craftsmen made play with blacks, browns, reds, tans, greens and creams to intrigue the eyes of Chinese mandarins in Shanghai.

Today steel doors from Hamilton are carried on mule pack trains through the Andean passes to the interior of Colombia in South America. They are in service in Panama and Peru, Bolivia and Chile. They have been used to withstand the humidity of Bermuda and the dryness of Morocco. Europe, France, England and Roumania are using them. They go to Japan, Australia and New Zealand and nearer home to Newfoundland, Cuba and Mexico.

In Canada at the last census there were between four and five hundred elevator tenders whose safety as well as that of the passengers depends upon the reliability of elevator doors.

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#### No. 45 — Radium

Radium is the most precious substance marketed in the world today. The price of one gramme is about \$30,000 while the same amount of gold is worth a little over one dollar. Each gramme of radium has energy equivalent to that of 3,000 tons of coal and the penetrating powers of its rays are very great. The common standard of measurement is by the milligramme which is one-thousandth part of a gramme. A gramme is a weight sufficiently minute to be used in weighing pinheads. Ninety milligrammes of refined radium can be sealed in a tube smaller than a match.

When the radium-bearing ores were first discovered in Canada, there was no one in the country who knew the method of treating them. Belgium held a virtual monopoly on world radium markets with sources of supply in the Congo, so Belgian assistance was not to be expected. A French scientist, who began his radium career in the Curie laboratory, came to Canada's assistance and, although it took months to produce the first gramme, the output gradually increased.

The silver-radium ores are separated and concentrated at the mines in the North and the resulting pitchblende concentrates are shipped to Port Hope, Ontario, in small bags that have been specially made and treated for their precious contents. The pitchblende itself looks like tiny lumps of anthracite coal but lacking coal's hard lustre.



The next one hundred steps or so in producing radium are very involved, consisting largely of as strenuous and complicated a series of chemical reactions as ever imagined. The finished product looks something like common salt and is sealed in minute glass tubes not much bigger than the lead in a lead pencil. These are stored in a block of solid lead and in 24 to 48 hours the action of the radium discolours the glass completely. Fresh radium salts glow brightly in darkness but seem to lose some of this visibly luminous quality in a short time though the rays continue for nearly 1700 years.

From Port Hope, the radium goes to the National Research Council in Ottawa where its official strength label is attached, and then usually to Great Britain where it is changed to a sulphate and sealed in needles, plaques or bombs.

A report issued by the Mining Branch of the Dominion Bureau of Statistics says that 34 tons of pitchblende concentrate was flown 1,500 miles to the nearest railway during 1935 in the winter flying season. Although figures are not published for the amount of radium obtained, it is estimated that nearly two grammes per month are being produced in Canada.

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#### No. 46 --- Honour for Dr. Craigie

Not quite fifteen years ago a very important step was taken by the Department of Agriculture in the saving of large quantities of wheat from the deadly rust disease. In June 1924, Dr. H. T. Gussow, Dominion Botanist, made an urgent plea for facilities to study this disease in the rust zone and presented his case to the Select Standing Committee on Agriculture and Colonization of the House of Commons, Ottawa.

Dr. Craigie's Association with the Rust Research Laboratory at Winnipeg commenced with its opening in 1925. A native of Nova Scotia, he had served during the war in France and India and has studied at three universities --- Harvard, Minnesota and Manitoba. He received his doctor's degree in 1930 for his researches in grain rust. He was presented with the Erickson Award by the International Botanical Congress in England and in 1936 was elected a Fellow of the Royal Society of Canada.

On November 15, he was presented with the new official medal by the Professional Institute of the Civil Service of Canada, for meritorious work in the general interest of the public. Dr. Craigie is the first recipient of the medal.

Now to come back to the particular enemy he conquered. The rust disease was scattered by spores but all the phases in its life history were not certain knowledge. In one particular stage the parasite lived on barberry leaves and at other stages on the stems and leaves of wheat, oats, and various wild grasses. The spores lived over during the winter. Dr. Craigie discovered the missing link in the life story.

From this discovery plant breeders may be able to produce rust resistant varieties of grain. Furthermore, the far-reaching importance of this discovery at once attracted world-wide attention and set in motion a new cycle of investigation.

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#### No. 47 --- Registered Money

In 1879, James Ritty of Dayton, Ohio, went on a holiday trip to Europe but his trip was not a pleasant one. He kept thinking of the way his business was failing, not from the want of patronage but somehow the money was slipping away. His mind

centred on the old-fashioned cash register, the one which had a little bell that rang when the drawer was opened but had no way to show how much had been put in — or taken out.

While pondering over his trouble as he stood on the deck of the boat, he became fascinated by the action of the ship's propellers. Then a solution came to James Ritty.

He invented a new cash register. It was arranged so that when a key was pressed down the amount registered by punching a hole in a roll of paper upon which were columns of figures reading from one to nine dollars and multiples of five cents up to 95. At the end of the day, the drawer was unlocked and the roll taken out. Then started the job of multiplying the number of holes punched at the two-dollar mark, the number at the 25-cent mark and so on.

Ritty found practically no market for his machine and soon sold his patent rights. Then John H. Patterson of Dayton, took up the struggle and a fierce battle it was. Sales clerks did all kinds of things to discourage him. They made wrong change purposely to discredit the accuracy of the register. When he advertised his machine by mail, they destroyed the letters before their employers could see them. But the work went on and now the company which he founded 50 years ago markets its machines in every corner of the earth. A Toronto factory was opened last year to supply the Empire needs.

The modern cash register, adding machine and typewriter combined, is composed of 10,000 parts. It takes 17 hours to check its accuracy after it has been assembled, but there is no chance for a dishonest clerk to make a profit out of it.

The Internal Trade Branch of the Dominion Bureau of Statistics reports that in 1935 the total sales of retail merchandise trade amounted to over two billion dollars. No doubt practically every candy store, meat market, garage and furniture store which helped to make up this sum, had a machine to register its sales. //

#### No. 48 — Home, Sweet Home in Canada

Home is a word which means everything to most of us, but which we are at a loss to define. From the oldest to the youngest, home is the place where we are known and accepted at our own value and above all, loved and understood.

Out of the eleven million people in Canada, there are about two and a quarter million families, or small groups of people making a home.

As in practically every country in the world, the typical Canadian family is the father and mother with children. There are nearly one and a half million such homes in the Dominion.

Then, there are the families where the mother is left to look after the children. Most of the women are widows and they number 182,000. Some 40,000 are caring for their children while the father is away earning a living in a lumber camp or traveling over land or sea. Often the husband has to carry on as both father and mother to his children and we find there are 57,000 such homes.

Of course, there are families without children. A typical case might be a brother and two sisters living together, clinging to the memories of an earlier home, or a man and wife without children. Whatever the number or relationship of the



members to one another, there are at least two and a quarter million places that can be called home.

As the family goes, so goes the nation. All those who have families to support may be regarded as having the greatest responsibility in the economic life of the country. It is up to them to see that the next generation is properly fed, clothed, housed and educated. When all is said and done, the home is the rock upon which the state is built, and the family man is the corner stone.

The figures used in this information are from the Census Branch of the Dominion Bureau of Statistics.

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No. 49 — Where Do You Work, John?

We work to live is true of the majority of people. Almost thirty per cent of what we earn is spent on food, fifteen per cent on maintenance of the home, and eight per cent on clothing. Considerably more than half of what we earn is expended on these three items alone.

Where does the money come from? Where does John earn his livelihood?

For the sake of convenience, the breadwinners may be divided into three classes — the primary producers, the secondary producers and the growing community engaged in the rendering of services.

The primary producers are engaged in extracting goods from the resources supplied by the bountiful hand of Providence. Agriculture carried on by more than 730,000 farms produced one-sixth of the entire national income or about three-quarters of a billion dollars. Mineral products obtained from the earth by 70,000 workers amounted to 180 million dollars. Unmanufactured products of the forest were valued at 115 million dollars and gave employment to 80,000 men. The fisheries and allied industries required the services of 77,000 men.

The secondary producers turn the raw products into manufactured commodities. The mills and factories of Canada employ close to 600,000 persons and the value added to raw materials by the manufacturing process is now around one and a half billion dollars annually.

The services include a great variety of workers, from professional men to domestic help. No fewer than 200,000 females are engaged in domestic service.

Looking over the census figures of 1931 we find that there were over two and a half million persons employed and earning an income, large or small. The average earnings of males in a year is \$927 and of females \$559. Besides the two and one-half million workers, who constitute nearly one-quarter of our entire population, there are 400,000 employers of labour and 600,000 other persons who are engaged in business on their own account.

This information comes from the General Statistics Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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## No. 50 - Canadian Potteries

Canada's present day pottery industry may be said to have got its start at the close of the 19th century when from out of the fiery interior of the Black Country kilns of England, a shipment of sanitary ware arrived at St. Johns, Quebec.

At the time, there were two pottery firms in St. John's which made tea-pots, jugs and other similar items. But Canadian-made tea-pots could not match those made in England, either in price or quality. So when the shipment of English-made ware arrived, a new vision came to the owners of the firms. An encouraging factor lay in the fact that there was a tremendous building boom in the West, while in the East, inside plumbing was virtually unknown. Within a few months both firms had switched from the manufacture of kitchen utensils to making sinks, tubs, etc.

Today, these small potteries have gone and in their place is a firm producing a complete line of vitreous or glassy china sanitary ware ranging from bathroom equipment and accessories to soda fountain jars and oven ware.

This is only one example of the strides made in the manufacture of clay products in Canada. Although most of our china dishes are imported, yet Canadian manufacturers are making progress along this line. The chief drawback lies in the fact that we lack the necessary clay for this particular product.

In Southern Saskatchewan there are deposits of ball clays which are used for bonding in making porcelain and other types of high-grade clays in Northern Ontario. But the only place that china clay has been produced commercially is near St. Remi, Quebec.

The clays produced in Canada are used for making building bricks, tiles for roofing and flooring, drain tiles and sewer pipes. There are over one hundred plants making products from domestic clay and their output was valued at over three million dollars in 1935.

Imported clay comes chiefly from England and the United States. In 1935 there were 20 factories making tableware, pottery, floor and wall tile, sanitary ware, earthenware, porcelain insulators and numerous other products valued at over two million dollars.

According to the External Trade Branch of the Dominion Bureau of Statistics there were 42 tons of china clay imported last year.

## No. 51 - The Potter

The primitive potter took the clay as he found it on the surface of the ground or by some river bed, and spreading it out on a stone slab, picked out the rocky fragments and after beating it with his hands, or stones, or even his feet, fashioned it into such shapes as were needed or fancy dictated.

This is one industry whose methods have changed very little throughout the centuries. The tools and methods have remained in the simplest form, the potter's wheel and the use of fire instead of the sun for drying and hardening being the chief improvements.



The first operation is the mixing of the clays. Vitreous or glassy chinaware is made from five kinds of china clay, three from England and two from the United States with some feldspar and flint quarried in Canada added. This is an important step because clays behave differently in various geographical locations. Centuries of experience have gone into the formula used by each firm making pottery.

Water is used to make the clay into a liquid which is passed through screens to remove particles of stone or coal. One screen is magnetized to catch little bits of metal which would make tiny rusty freckles on someone's wash-bowl.

The mixture then has the water squeezed out of it and it emerges in moist slabs. These slabs are mixed with a measured amount of water and piped into moulds after being treated with chemicals which give the mixture greater drying powers.

All moulds are made of plaster-of-Paris which are one-eighth of an inch larger than the dried casting is intended to be. That is because of the shrinkage. The craftsman who makes the moulds from solid blocks of plaster uses blue prints and upon his skill depends the beauty and utility of each piece.

After a few hours in the moulds the casts are taken out. At this stage it is called "green ware" and is light brown in colour. A period of ten days drying on open racks makes the colour almost white. Then comes the final drying, a journey through the fiery heart of the kiln which lasts three days, progress being made at the rate of six feet every seventy minutes. So terrific is the heat that the wheels and tracks of the car carrying the casts are sunk in the sand and cool air pumped constantly between the car rails.

After a dip in a tub of glaze the article goes for another ride in the furnace. If colours are desired, they are sprayed on before the final baking and after six weeks in the making, each product is ready for the market.

At the last census, according to the Dominion Bureau of Statistics, there were nearly 1,300 people making earthenware and china, only 135 of them were women.

## No. 52 -- Oil from the Maritimes

Remember how the teacher told us about the tidal bore on New Brunswick's Petitcodiac River caused twice every 24 hours by the playful tides of the Bay of Fundy? Like many others who visit this natural curiosity we should probably be impressed and let it go at that, but not so a mining engineer who visited there a few years ago with a certain idea in the back of his head.

In 1907 a group of people from New Brunswick who had been granted oil and gas rights over a large area of the province, went to a number of Old Country capitalists to ask for aid in developing oil fields. Among these gentlemen was Dr. Henderson who was interested enough to come to Canada and not until he arrived on the scene was any real exploration work undertaken.

What caught the eye of the experienced engineer was the fact that just before the bore came in, the level of the river was lower than at any other time and left exposed out-crops of black rocks in the river bed of Stony Creek. The hair-breadth escapes from on-rushing tides and from mud, resulted in the discovery of the Stony Creek Gas and Oil Field in New Brunswick today.

Prior to this discovery, many geologists had definitely stated that oil and gas did not exist in the Maritime Provinces in any quantity worth mentioning. Dr. Henderson, however, had such faith in his own conviction, gathered from world-wide experience, that he put his own money into the venture.

The gasoline and oil from this field is sold chiefly to local industries, the government and the railways. No more than can be sold is produced although vast quantities are available. The crude oil burns without smoke or dirt and is much sought by bakeries, laundries, wall board plants and so on. Much of the gasoline is used by government road patrols.

At present the principal source of crude petroleum is the Turner Valley in Alberta. There are important fields in southern Alberta, 14 throughout Ontario and last but not least a recent discovery near Fort Norman in the Northwest Territories.

A report by the Mining Branch of the Dominion Bureau of Statistics shows a total of nearly one and a half million barrels of crude petroleum produced in Canada last year. Over one million barrels of it came from Alberta, 165,000 from Ontario and 17,000 from New Brunswick.

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#### No. 53 -- A Trout Nursery

In spite of some fishermen's tales, we are told by men who study fish that the speckled trout rarely weighs more than eight pounds, even though it may live to the ripe old age of fifteen summers.

If we make believe that all speckled trout weigh this much, then last year over 900,000 fish were caught -- at least the Fisheries Branch of the Dominion Bureau of Statistics reports that that number were caught and landed for marketing. Of course, there is no way of knowing about the ones that were caught but not landed nor how many went the way of all fish caught by big boys and little boys. The year before over 800,000 were caught and marketed.

At this rate of depletion, the mother fish would be kept very busy raising a family to keep speckled trout from becoming extinct. However, human beings are realizing the value of keeping the brooks and streams supplied with trout, and piscatorial nurseries are established throughout the provinces by their governments.

The station at St. Faustin is the most recent and largest of six nurseries in Quebec. There a fish expert who, has thirty-five years of experience to his credit, raises the baby trout in artificial ponds and concrete tanks filled with water piped from springs.

The eggs are gathered about the fifteenth of October and remain during the winter in small black troughs where the spring water never freezes. Hatching takes place in March and in May the small fry are playing about in the cement tanks. During the first few months 650,000 little fish can eat every week, 2,000 pounds of beef liver served finely ground, three times a day. By September or October the fish are big enough to be transferred into public and private lakes.

One or two interesting events take place in the nurseries. First, the weekly tonic salt bath which keeps the fish's skin free from disease and second, marking of the trout by removing the front right fin. For this event, the fish are immersed, a few at a time, in an anaesthetic solution while the operation is being performed.



## No. 54 — A Globe Trotting Industry

Picture a neatly labelled bottle of medicine wrapped in cellophane in the hands of an ailing Borneo villager. In that bottle there is, more than likely, an herb or an oil that the sick man's head-hunting ancestors used long before they secured their first white trophy. From out of the deepest jungle and from polar seas come raw materials and back to the jungle and polar area they go all dressed up in neat bottles or boxes. They have been mixed and powdered, liquified and separated until experts give their approval.

The business of making medicine from botanical drugs has changed very little from what it was in the days when the world was young. Pharmacy is a social responsibility governed by a jealously guarded code of ethics which have for centuries proven to be the most practical. Every ingredient must be tested for purity and uniformity. Here are a few things which the agents of this globe trotting industry gather for the alleviation of suffering.

From across the seven seas dozens of different kinds of strange herbs and roots, fragrant barks and evil-smelling gums are brought. Bales of bachu leaves from the Hottentot country; aloe from Zanzibar; cinnamon and sandalwood from India; arrowroot from Jamaica, dandelion roots from Germany, rhubarb roots from China; evaporated gastric juices from cows and fungus from Russian rye, to say nothing of the drums of cod-liver and petroleum, bags of sugar and even tins of pineapple, all meeting in one place. Here they halt their long journeys for a while and then on they go again.

In 1935, there were 166 factories making patent and proprietary medicines, pharmaceuticals and similar products, valued at 21 million dollars. Ontario produced 63 per cent of the Canadian output and Quebec accounted for 30 per cent.

Imports into Canada of drugs, medicinals and pharmaceuticals in the same year were valued at nearly three million dollars; over one third came from the United States, the United Kingdom sent \$853,000 worth and France \$244,000.

This information is based on a report from the Chemical Branch of the Dominion Bureau of Statistics.

## No. 55 — A Rainbow in the Chimney

Strange though it may seem, brilliant scarlets, blues, greens and yellows may be going up through the chimney at this present moment. Of course this magic rainbow is not visible to the ordinary looker-on, but chemists have been able to produce these lovely colours by the persuasive powers of heat on coal.

Soft coal when heated in coke ovens, away from contact with air, makes coal gas and coke. One of the by-products is coal tar, which drops out as a liquid. It is black, sticky and evil-smelling, but this unromantic mass contains many lovely colours. The coal tar is heated and at different temperatures various coal tar products are separated. Then comes the excitement of mixing so many parts of each separated product to so many parts of another. Just like making a new kind of cake, the difference being that the chemist knows what he is likely to get while the cook takes a chance. Each desired dyestuff is built up according to a definite plan.

The term 'fast colour' means a colour which cannot be washed out or faded by light. These dyes or colours are more difficult and expensive to make and to apply to fabrics. They are insoluble in water and before being applied to the material,

must be made temporarily soluble to penetrate the fabric. When the cloth dries, the dye remains and no amount of washing will remove it. The reason why fast colours are more expensive than others can be readily understood.

In Canada during 1935 there were 23 establishments which reported to the Manufactures Branch of the Dominion Bureau of Statistics that about 31 million yards of fabrics and over one million pounds of cotton and artificial silk yarns had been dyed and finished by them. Over three million yards of fabrics had colours printed and painted on them, which all sounds like a lot of dyeing for 997 people.

This rainbow-making industry used 426,000 pounds of dyes in colouring fabrics and yarns to delight the eyes of Canadian people, especially the ladies.

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#### No. 56 — Natural Resources of Japan

At the present time, Japan is causing a great deal of anxiety, especially to those who are responsible for our marketing of Canadian products. The average citizen is more concerned with the thought of conflict. So it might not be amiss to devote some space to facts about the Land of the Rising Sun.

Japan proper comprises the mainland, Shikoku, Kyusku, Hokkaido, Chishima, Ryukyu, and over 400 islands. In all the area is about 148,000 square miles and the population over 69 million. Canada is about 25 times greater in area and has only one-sixth of the population.

Mountain ranges and volcanic chains traverse the Japanese islands, the rivers are generally rapid, being used mostly for generating water-power. The plains, few in number, but fertile, contribute much to the development of industry. Numerous bays on the Pacific Coast are good harbours. The climate in general is mild but humid.

Only one-seventh of the area is fit for ploughing and more than half of it is rice or paddy fields. Intensive cultivation is practised, the average farm being two to two and a half acres in extent. Manual labour is employed with simple implements, although the ox and horse are used to some extent. The annual agricultural production is valued at three billion yen or about 840 million dollars. Canadian agricultural wealth amounts to about six billion dollars a year. The principal products raised in Japan are cereals, including rice, wheat and barley.

The forests of Japan cover 58 million acres or nearly 62 per cent of the total area of the country. Canadian forests occupy about 14 times as much space.

The principal mineral products include gold, silver, copper, iron, zinc, tin, lead, as well as coal, petroleum, sulphur, sand and stone, and are valued at 271 million dollars. Canada's mineral production was valued at 361 million dollars last year.

The fishing industry brought in about 140 million dollars in Japan while the same industry in Canada during the same year was valued at 34 million dollars.

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No. 57 --- Selling Canadian Products to Japan

Every day existence seems to be made up of buying and selling. Individuals selling their services so that they can buy food, clothing and shelter; business firms selling their wares and, greater still, nations selling their products to each other, either raw or manufactured, maybe both. Japan is a great market for Canada's raw materials.

The Japanese market is a very difficult one owing to the difference in race, language, and methods of doing business. Advertising is an interesting phase. Newspapers and periodicals are used mostly by local dealers, who, with few exceptions, do not advertise as extensively as in other countries. Japanese magazines contain very few advertisements relating to foreign merchandise, and street car advertising space is mostly for Japanese products. However, window displays and frequent exhibitions have produced results. An excellent way of acquainting the Japanese with Canadian goods has been found to be through catalogues. The Japanese spend hours looking over these publications and, even though they do not understand English, the cuts and drawings appeal to them and they have friends who make translations for them.

In order to facilitate the preliminary details of selling products in Japan, the Canadian government has trade commissioners in that country, who, as in all foreign countries, find out the possible opportunities and just how to present the commodity. These men know the duty rates, the prices in the domestic market, the public demand and the intricate workings of foreign business customs.

All the large Japanese firms, and a great many of the smaller concerns, have members on their staff who have lived in the United Kingdom or North America, or who have studied English. This helps considerably.

A point seldom realized by Canadian exporters is the proximity of the Japanese market to Canada. Freight can be delivered in Yokohama nine days after it is put on board at Vancouver. From the eastern coast, however, is much longer. There are no direct steamship lines from Montreal, Halifax or Saint John to Japan. Goods are sent by coastwise steamers to Vancouver via the Panama Canal.

This information dealing with Japan has been based on information from the External Trade Branch of the Dominion Bureau of Statistics and the Commercial Intelligence Journal of the Department of Trade and Commerce.

No. 58 --- Canada's Trade with Japan

The basic aim of the industrial life of Japan is to build up her own industries and to manufacture everything possible at home. Hence, she is an importer primarily of raw and semi-manufactured products.

In 1935 there were over 85,000 factories employing two million workers. In addition, there are thousands of household industries -- each employing fewer than five persons -- for which statistics are not available. The cost of manufacturing is relatively cheap and manufactured articles are protected by a high tariff.

Raw cotton, wool, crude and heavy oil, and iron and steel make up about 50 per cent of Japan's imports. Other important imports are pulp, ores, wood, rubber, beans and peas, wheat, sulphate of ammonia, copper, lead, automobiles and parts, gasoline, etc. About forty per cent of Japan's exports consists of cotton tissues, raw silk and artificial silk tissues. Other exports are machinery and parts, iron, canned and

bottled goods, knitted goods, pottery, cotton yarns, vegetable fatty oils and toys.

With Japan's need for raw materials to feed the mouths of the 85,000 factories, where does Canada stand?

Last year close to 20 million dollars worth of products went to Japan from the Dominion. Non-ferrous metals, such as copper, nickel, lead and zinc and their products accounted for seven million dollars. Next in order of value were wood and paper at five million dollars, agricultural products about the same, non-metallic minerals such as asbestos and sulphur \$950,000, animals and animal products \$922,000, and iron and its products \$656,000.

In return we bought from Japan imports to the value of four million dollars. Slightly over one million dollars worth of silk and cotton textiles and products, the same amount of agricultural and vegetable products, rice, oranges and tea being the chief items. Non-metallic minerals and their products, such as pottery, chinaware, window glass and celluloid amounted to \$506,000. Animal products were valued at \$350,000 and wood and paper products at \$123,000.

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#### No. 59 — Coronation Memories

Those who were fortunate enough to attend the Coronation celebrations in London very likely have many memories to cherish in the coming years. Many others, who were unable to be there in person, will recall getting out of bed early in the morning to hear the ceremony over the air direct from Westminster. Young people have had the privilege of sharing to a greater extent than ever before in this history-making episode. In days to come the impressions received on that occasion will have some influence upon the trend of their thinking.

As a whole, Canada spent somewhere in the neighbourhood of one million dollars to celebrate the Coronation. Every city, town and village held festivities of some kind, souvenir medals were distributed, churches held special services, guns fired salutes and even special flower beds were planted in public areas.

Among the tangible aids to memory is a consignment of four thousand acorns from King George's Park, Windsor, which were sent to Canada to be planted by Canadians who pledged themselves to tend them as they grow.

A glowing memory will be retained by some 86,000 boy scouts who took part in making the greatest beacon light chain in history. From Sydney, Nova Scotia, to the British Columbian coast and thence up to the North towards the Yukon, the beacons blazed.

The Royal Canadian Mounted Police, who received great praise for their magnificent appearance and for the excellent control of their mounts, will probably remember with a smile the stir of excitement they caused wherever they went.

The three hundred Canadian school children who were selected throughout the Dominion to attend the great event, are, no doubt, giving descriptions to the rest of the class of their adventure, how they went along with the rest of the seven thousand children to the great Rally of Youth in Westminster Hall on May 18 and to Westminster Abbey on May 19.



Even the trappers in the Far North will have something to remember. The great demand for Canadian furs for trimming court costumes caused prices to reach something like the 1929 levels, according to the Fur Statistics Branch of the Dominion Bureau of Statistics.

#### No. 60 — Tomato Juice for the Miners

In reading over a report supplied by the trade commissioners in England to the Department of Trade and Commerce regarding the market for Canadian canned goods, it is interesting to note "that the flavour of Canadian tomatoes is well liked and the extra juice contained in the tin is very popular with a certain section of the public in the North of England, especially the miners". And again "tomato juice is very gradually increasing in demand but as yet it is only rarely seen on hotel or restaurant menus in the West of England. In some hotels it is more frequently found in the bar than in the dining-room."

Tomatoes are having a time of their own in England. Spain at one time supplied England's market with considerable quantities and, when this source was curtailed by the war, the Canadian tomato came to the fore. Now, Italian packers are making a determined effort to capture the English trade which, in part, was lost for several seasons to Spain. Although the Italian tomato is considered by some to be superior to the Spanish variety, the Canadian pack has a fine flavour, and local brokers are of the opinion that the increased business that has been done in Canadian tomatoes is not solely dependent upon the difficulties in Europe.

As for tomato products, several of the internationally known packing firms which supply this market from domestic or United States plants have their tomato products put up in Canada. This includes, in addition to canned tomatoes, tomato juice, catsup, chili sauce, and soup.

Exports of Canadian canned tomatoes increased from 28 million pounds for the year ended August 1936 to nearly 30 million for the year ended August 1937, according to the External Trade Branch of the Dominion Bureau of Statistics.

#### No. 61 — "My Heart's in the Highlands"

On November 30, Scotsmen and sons of Scotsmen the world over celebrate in memory of their patron saint, Andrew, son of Jonas, a fisherman of Bethsaida. There are more Scots outside of Scotland to sing "My Heart's in the Highlands" than in the Highlands themselves. In Canada, people of Scots origin have about tripled in number in the last sixty years or so and from this staunch race have come many prominent men and women.

Back in 1829 when a great many were leaving their homes in the Highlands and had crossed the ocean to make a living in Canada, a poem expressing their feelings over the severance of home ties became a well-known song. The most striking verse runs:

From the lone shieling on the misty island  
Mountains divide us, and the waste of seas;  
Yet still the blood is strong, the heart is Highland,  
And we in dreams behold the Hebrides.

Whole villages at a time came to the new country carrying with them their language, their opinions, their songs and their traditions. They also retained their strong religious principles.

But while remembering to "tak' a cup o' kindness yet for auld lang syne", and for the land of their fathers, the allegiance of the Scots is to Canada, the land which welcomed the exiles and which continues to present opportunities to their sons and daughters.

Imperial Russia also claimed that Saint Andrew preached the Gospel there and Peter the Great founded the Russian Order of St. Andrew, the highest in the Russias of the Czars. However, the U.S.S.R. pays no attention to St. Andrew today.

But throughout the length and breadth of Canada as well as in all parts of the world, the Scots remain faithful to Saint Andrew's memory.

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DEPARTMENT OF  
TRADE AND COMMERCE



CANADA

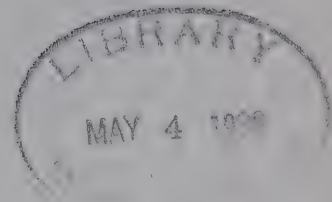
**A FACT A DAY ABOUT CANADA**

FROM THE

**DOMINION BUREAU OF STATISTICS**

**DECEMBER 1937**

**FOURTH SERIES**



Published by Authority of the HON. W.D. EULER, M.P.  
Minister of Trade and Commerce.

Price 25 cents per annum



## Contents

- |   |  |
|---|--|
| 62. Co-eds.                             | 77. The Iron Paint Box.                      |
| 63. Custodians of Beauty.               | 78. Rock Wool.                               |
| 64. Young Men's Christian Association.  | 79. The Fireplace in History.                |
| 65. Carelessness or Fate?               | 80. One British Possession in South America. |
| 66. December's Birthstones.             | 81. Casein.                                  |
| 67. Tea from Ceylon.                    | 82. The Wheat Mixing Law.                    |
| 68. Who Ate the 1936 Cheese?            | 83. Densities of Population.                 |
| 69. Young Agriculturists.               | 84. Holly and Poinsettia.                    |
| 70. Barite.                             | 85. Adrift.                                  |
| 71. The "Santa Claus" Ship.             | 86. National Park Films.                     |
| 72. Wheat and Flour Situation in China. | 87. Early Toys.                              |
| 73. A Bird City.                        | 88. Gift Bells.                              |
| 74. The Porpoise Menace.                | 89. They Cut Down the Old Pine Tree.         |
| 75. Harvesting Sea-weed.                | 90. Shoes.                                   |
| 76. Airplane Clinics.                   | 91. Canadian Housing.                        |
|   | 92. Fish Meal for Germany.                   |

James Muir,  
Editor.

### Please Note

Please make the following changes in your copy of the Fact a Day about Canada item "Canadian Textile Production" number 28, appearing on page 19 of the October, 1937, issue: Value of products should read \$342,054,536 instead of \$161,000,000 and employees 115,596 instead of 12,291.

from the

Dominion Bureau of Statistics

No. 62 --- Co-eds

The 100th anniversary of college education for girls was celebrated this fall at Oberlin College in Ohio. There, in the autumn of 1837 "four timid young women" matriculated, the first in the world it is claimed, to be admitted to a standard college course. A million or more have followed in their footsteps, but it was some years later in most countries before the first began.

According to the archives of the Canadian Federation of University Women it was not until the 1870's that the first women entered Canadian universities, and their admission was not generally allowed until the 1880's -- only about 50 years ago. Earlier than that a few had gone to colleges in the United States, including Canada's first woman doctor who began practising at Toronto in 1867.

Today there is hardly a branch of university studies that girls have not penetrated. Among each year's 6,000 graduates from Canadian universities they number more than 1,500, and include doctors, dentists, druggists, lawyers, theologians, architects, librarians, teachers, graduates in social service, science, commerce, agriculture, veterinary medicine and a host of other specialties. Forestry is one of the few departments of study that numbers no women among its graduates.

Many have become college teachers in their turn, nearly 500 in Canada having full time positions of this kind. Among them are deans and principals.

Such are some of the changes that have come about within the lifetime of the earliest women graduates in Canada. Co-education has indeed become a fact.

This information comes from the Education Branch of the Dominion Bureau of Statistics.

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No. 63 --- Custodians of Beauty

At this season of the year, we instinctively turn our thoughts to churches in general. Throughout the year we have attended one in particular but, as Christmas draws near, the realization of its meaning makes us think of all Christian denominations as one. Not only is this feeling true for the present day congregations, but somehow we feel a closer bond of fellowship with the congregations of the past. We marvel at the faith of our ancestors in the pioneer days. Many churches built by their hands remain today as mute reminders of the spiritual heritage they bequeathed us.

Such a building stands in the city of Toronto, a beautiful example of pioneer construction. We are told that it is one of Upper Canada's earlier achievements, with stone and timbers now almost a century old.

The beginning of this cathedral dates back to the early years of the Victorian era. Bishop Power, in 1842, sealed in its cornerstone some pillar fragments and small oaken pieces from the roof of England's Cathedral of York, relics then over



five centuries old. Pine trees from the forest, now the busy streets of Toronto, were hewn by hand and are firm and sound today. The Franciscan monks drew their own designs, built and fired their kilns to fix the colours of the huge original window of stained glass behind the high altar. St. Michael's of today is still the same cathedral that it was when it was built, little changed by the years.

Of course, in time buildings lose their fresh youthful appearance but their mellow tones of wood and paint remind us of old and tried friends. In order to preserve their original beauty often sculptors and artists are called upon to touch up the fading colours.

Last year, the redecorating of this beautiful Toronto cathedral was begun. The work involves the equivalent of transferring a gallery of art to plaster. There are more than one hundred individual paintings, murals, coats of arms and symbols. and the decoration work is an emphatic refutation of the statement that the craftsman's day is ended.

A report by the Education Branch of the Dominion Bureau of Statistics shows that those graduating in the fine arts, artists, art teachers, sculptors and painters, have more than doubled in the last thirty years. The power not only to create beautiful things, but to preserve those already in our possession lies within the hands of 2,600 men and women at the present time.

#### No. 64 -- Young Men's Christian Association

The voluntary organization of world-wide scope, called the Young Men's Christian Association, was designed to promote the spiritual, social, intellectual, and physical welfare of young men.

The first group was organized in London, England, by Sir George Williams. His aim was to establish religious services and Bible classes among the young men employed in business. Seven years later, in 1851, seven additional associations had been established in London and sixteen in other parts of the United Kingdom, all of which were affiliated with the original body.

On December 9, 1851, the first North American Association was founded in Montreal and twenty days later another in Boston. From these two cities the movement spread quickly. Three years later, nineteen organizations were represented at the first convention of North American associations at Buffalo. At this meeting an alliance of the associations of the United States and Canada was established.

In the meantime, the movement had spread to Germany, France, Holland and Switzerland. At the World Conference in Paris in 1855, 97 delegates came to represent seven nationalities. A world membership of 30,000 members was reported. In 1935, this membership was over one and a half million.

The present programme of organized activities covers youth's problems in religious, educational, physical and social welfare. Work amongst young boys was begun in 1869 and this activity has dominated in the programmes during the last decade. Hi-Y groups or clubs are composed of high school boys affiliated with the Y.M.C.A.

During the World War, the work of the Young Men's Christian Associations was a vital factor. Over 4,000 associations huts or shelters were erected where physical, social and religious needs were attended to.

According to the Census Branch of the Dominion Bureau of Statistics, in 1931 there were 1,134,000 single young men between the ages of 15 and 29. A report from the Y.M.C.A. shows an annual membership of between 45,000 and 50,000 young men. The inference drawn is that a goodly number of young Canadians are seeking the assistance of this organization for a fuller life.

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#### No. 65 -- Carelessness or Fate?

During 1936 enough people died as the result of accidents to make a community the size of Prince Rupert, British Columbia. The Vital Statistics Branch of the Dominion Bureau of Statistics has made an interesting study of accidental deaths and one wonders if a large number of them could not have been avoided.

Nearly all the accidental deaths of children under one year of age were due to some form of suffocation, either while sleeping with the parents or when the child rolled over on its face or was smothered in the bed clothes. In one case a cat slept on the little victim's face. Deaths due to burns, especially scalding with hot liquids, took the next greatest number.

Small in stature but ceaseless in activity, children from one to four years old, can certainly find a number of ways to get into trouble. Burns ranging from hot liquids to grass fires headed the list. Eating poisonous pills and such preparations, falling into wells or shallow water, running into automobiles or falling from balconies or chairs are all part of the list. One little fellow was strangled by buggy harness.

The school age takes children away from home and naturally most of the accidental deaths are caused from vehicles such as automobiles and street cars. Drownings are frequent and when firearms are played with something serious is bound to happen. Twice as many boys as girls between the ages of 5 and 14 are taken by the Grim Reaper in accidents.

Adult deaths are the result of accidents in which some form of transportation is concerned more than anything else. Drownings also take a heavy toll. But as people pass the 70-year mark, they are more subject to accidents in the home such as those due to falling or to being burnt.

Strangely enough, there were more women fatally injured over 70 years of age than men. The opposite was the case under 70 years of age.

Of the 6,351 deaths due to accidental causes, 780 of them were due to the unusual heat wave in July, mainly in Manitoba and Ontario.

Whether these people were the victims of carelessness or supposedly to fate, we do not know, but wiping out a whole city within the period of one year seems to be a terrible waste of human life.

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#### No. 66 -- December's Birthstones

Two blue stones are selected for the month of December, the turquoise and the lapis lazuli.



The name turquoise, which is said to come from a French word meaning Turkey, came into use in the thirteenth century. The stone was mined as far back as 5500 B.C. The oldest known jewelry is said to have been a set of bracelets of gold and turquoise which probably came from these ancient mines.

The turquoise was supposed to possess the power to protect the wearer from injury by falling, especially from horseback. Horses having a little bit of turquoise fastened on the bridle or even to the mane or tail were said to be sure-footed. Today, few religious rites of the Indians of New Mexico and Arizona take place without turquoise because of its supposed powers of healing and because it is an emblem of all beautiful and sacred things. In Tibet it is valued above all else. We value it for its colour alone. Turquoise should never come in contact with soap or grease; they discolour it.

The lapis lazuli has been known for centuries. In ancient Babylonia and Egypt it occupied a most important place, being mentioned before gold or other precious objects in all reports of loot brought back from vanquished nations. It was used in all kinds of jewelry, decorative objects, mosaic and inlaid work. Emperors and bishops of old Russia made luxurious use of lapis as wainscoting in palaces and pillars in cathedrals. Early in the history of art the powdered stone furnished the pigment known as ultramarine for fine oil paints.

According to the External Trade Branch of the Dominion Bureau of Statistics over half our imports of precious stones come from the United States.

#### No. 67 -- Tea from Ceylon

While you are sipping a cup of tea one of these cold winter days let its fragrance carry you to the place where it was grown, away to the Indian Ocean for instance.

There, lying under the tropical sun is the island of Ceylon, 270 miles long and 140 miles wide, Lake Superior would just about float it. In the warm sunshine parrots and monkeys play about in the palms and tree ferns, peacocks strut among the orchids.

Like a vast garden this island is devoted chiefly to agriculture, but many precious gems are found there, diamonds, opals, pearls, rubies and many others.

The population is about five million; Europeans numbering about eight thousand. A very old country whose history begins about 543 B.C. its entire sovereignty passed into British hands in 1815.

The 3,000 factories on the island are engaged chiefly in preparing the agricultural products for market. About half of them produce tea, rubber and cacao. The villagers make furniture, lace, jewelry and brassware in their homes.

In Ceylon, the tea plant reaches its full perfection due to the very fertile soil and moist climate. Here in the wild state the tea plant grows to a height of twenty feet and over and bears leaves as large as a man's hand. Under cultivation it is kept at a height of three feet by pruning and can be picked all the year round.

Another interesting fact is that the higher the altitude of the gardens the finer the tea. The most delicate leaves are from plants grown more than 5,000 feet above sea level.

Enough tea came from this island last year to give everybody in Canada 300 cups apiece; 14 million pounds of leaves picked in Ceylon. This is about one third of all our imports of tea last year, according to the External Trade Branch of the Dominion Bureau of Statistics.

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#### No. 68 -- Who Ate the 1936 Cheese?

Last year the Canadian production of cheese was 118 million pounds. Now, who ate it?

It may be supposed that the cheese made on the farm would be used mostly by the farmer's family. That would account for over one million pounds.

According to the Agriculture Branch of the Dominion Bureau of Statistics the domestic consumption is only about 32 per cent of the cheese produced. That is, Canadians eat only about a third of the cheese that is made in Canada. As the mice can't eat the other two-thirds, many pounds of cheese must be leaving the country. Then again, some particular brands improve with time and would therefore not appear on the market during the year they were made.

About 82 million pounds of cheese were shipped from Canada last year, most of it going to the United Kingdom. Lately investigations of the opportunity of marketing cheese in the United Kingdom took place and it was discovered that quantities of Canadian cheese were being sold as cheese from the United States. Steps to stamp the product with special identification marks are under way. The export to the United States last year was over eleven million pounds.

The prospect of selling our cheese abroad seems encouraging when we consider that it is sold in many other places, some of which are Bermuda, Belgium, Malta, Jamaica, Japan, China and Newfoundland.

In Canada cheese making is encouraged and prizes are awarded to the best cheese maker. The 1937 champion is J. M. Bain of Ontario whose Cheddar cheese was pronounced of top quality in a competition in which 500 Cheddars were judged. Entries came from every province of Canada, South Africa, New Zealand, Britain and Australia.

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#### No. 69 -- Young Agriculturists

The official census taken in 1931 by the Census Branch of the Dominion Bureau of Statistics showed that over one-third of the male population was gainfully employed in agriculture.

This is not a surprising fact when we consider that Canada is suited to agriculture. The earliest attempts at permanent European settlement were intended as agricultural settlements. At the present time about 58 million acres produce field crops such as wheat, oats, barley, corn, beans, peas, potatoes, turnips, sugar beets, etc. and eight million acres are devoted to pasturage.

With such a vast farm area to work the Dominion has need of farmers who are experienced and who are willing to keep abreast of the times in respect to agricultural developments. For this reason, some twenty years ago the first Young Farmer's Club was founded. Many young farmers are unable to attend an agricultural school or college so these clubs are helping to provide some degree of education.



The members are not all young men, there are many young women interested too. This year no fewer than thirty one teams of two members, each made up of 55 boys and seven girls made their way to the finals at the Royal Winter Fair held in Toronto. Contests with the older opponents in agriculture as well as among the younger members, stimulate and create interest.

There are at the present time well over 2,300 clubs with a membership of 36,000 and the number is growing. Most of the members are interested in livestock and poultry, then field crops followed by horticulture and economics.

The Dominion and Provincial Departments of Agriculture take an active part in promoting the work of the clubs and assist generally in financing.

#### No. 70 --- Barite

There are minerals found in Canada with which most of us are unfamiliar; some of them have little commercial value as yet but who knows when or how soon some scientist will find a use for them.

Barite or barytes is one such mineral. The Department of Mines at Ottawa reports that some interest was taken recently in the possibility of shipping barite to Trinidad for oil drilling. Finely ground barite mixed with a clay and a suitable suspending medium is effectively employed in the heavy liquids used as well-seals in drilling for petroleum. A well seal is a device or trap to prevent a backward flow of gas or oil.

Barite is a white mineral occurring frequently in granular or crystalline shape. It is usually found in veins, quite commonly in lead ore mines. Near Spillimachen in British Columbia barite replaces limestone in thickness of from 10 to 60 feet and the possibility of producing commercial barite as a by-product from the milling of lead ore has been suggested. So far most of the barite comes from deposits in Nova Scotia, Quebec and Ontario.

This mineral is a common ingredient of paints. Last year the paints, pigments and varnished industry of Canada used two and a half million pounds of it. It is also employed in the manufacture of artificial marble, explosives, printer's ink, sealing wax, soap, glazes, linoleum and artificial ivory. The textile industry uses it for dressing cloth and leather while the paper manufacturer finds it gives a smooth coat to "art" paper.

According to the Mining Branch of the Dominion Bureau of Statistics the last commercial shipments from Canadian deposits were made in 1933 in which year 20 tons were produced. In 1936 three million tons were imported; most of it came from Germany.

#### No. 71 --- The "Santa Claus" Ship

At this time of the year, we are thinking of the jolly, old fellow called Santa Claus. Most of the time we picture him driving along behind his prancing reindeer but now some times people say he uses an aeroplane. Here is a story that tells of a "Santa Claus" ship.

Steaming into the harbour of Halifax, Nova Scotia, a week before Christmas came the big passenger liner Montrose. Safely tucked away in her hold were 10,000 bags of Christmas mail from the United Kingdom. The Montrose has played this happy role on three occasions in the past four years and has brought over 30,000 bags of Christmas mail to the Dominion.

Waiting the arrival of the vessel was a special train. Thirteen or fourteen mail cars transferred the westbound letters and parcels to Montreal. From that point fast trains carried the seasonal greetings to the rest of the Dominion.

No doubt the postmasters and postmistresses were prepared to handle the additional mail because they knew that in every one of the 12,000 post offices in Canada, eager-eyed children would be standing in line waiting for mysterious-looking packages or bright cards.

People living the rural areas have mail boxes on posts in front of their homes with their names on them. Many a little nose would be pressed against the window watching for the postman drive from farm to farm putting the letters or parcels in their owner's box.

Some people live in lonely places where dog teams or aeroplanes have to be brought into service. Maybe a parcel from the "Santa Claus" ship went north to Aklavik on the MacKenzie River; that would be a very long trip.

A system of rural mail delivery was inaugurated in 1908, a delivery limited at that time to existing stage routes. The service was greatly extended by new regulations taking effect in 1912. The number of rural routes increased from 900 in that year to over four thousand in 1935. Mail boxes increased from 25,000 to 242,000.

#### No. 72 Wheat and Flour Situation in China

The official crop returns of the National Agricultural Research Bureau of China for the current crop year ended July 31, are estimated at over 636 million bushels. The Canadian wheat crop this year, which was considerably below the average, amounted to 188 million bushels.

"The leading grain trade houses in Shanghai are of the opinion that there will be very little activity for at least the next six months in the importation of wheat from foreign countries," states the Commercial Intelligence Journal. The coastal shipping blockade has paralysed the normal movements of flour from Shanghai and the Shanghai millers who depend upon the coastal trade are running on greatly reduced schedules. They are not drawing their usual supplies of wheat from the interior, nor are they interested in quotations from overseas. Canadian shippers have not been able to participate substantially in this trade for several years past.

Until recently the Shanghai market for imported flour was largely confined to the requirements of the foreign population, together with a limited use among the better-class Chinese. The loss in trade due to hostilities is compensated for to some extent in the trade returns by the direct importation of flour to meet the requirements of the British and American forces stationed in Shanghai.

The market for imported flour moves independently of the local milling industry. The flour millers believe that although the 1937 crop has been rather poor, it will probably take care of the most of the needs of China until such a time as the new crop is harvested.



In 1936 Canada shipped 73,000 barrels of wheat flour and 117,000 bushels of wheat to China, according to the External Trade Branch of the Dominion Bureau of Statistics. In 1937, 40,145 barrels of wheat flour were shipped but no wheat.

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#### No. 73 --- A Bird City

Great ocean liners approaching the Gaspé Peninsula silence their whistles when they pass Percé where the Dominion Government and the Province of Quebec have established a bird sanctuary. Steamships may sail within close range of this famous bird city and afford their passengers a close-up view without disturbing the feathered citizens who nest on the lofty cliffs of Bonaventure Island and on the top of Percé Rock. But whistles are out, because a loud blast would so startle the birds that, in their haste to take flight, they would upset hundreds of their eggs or young into the sea.

Percé is a small fishing village near the tip of Gaspé Peninsula. Standing guard with its feet in the sea is the great Percé Rock and a few miles off shore Bonaventure Island lies like some gigantic petrified whale grounded on a sandbar or reef.

Tradition has it that Jacques Cartier stopped long enough to plant a cross on the high bluff along this part of the coast. Later on several occasions the religious and fishing stations of Percé were destroyed by those seeking the conquest of the new colony. The fleets of Phipps and of Wolfe ravaged and completely destroyed Percé and other settlements on that part of the Gaspé coast.

Bonaventure history dates back early in the 1600's when some Biscay fishermen settled there. The island was the former home of Captain Duval, privateer and free-booter, who was the terror of French seamen during the wars between France and England. Some of the old homes still remaining on the island are real museums.

Today Percé's importance lies in its tourist attraction. According to the census taken in 1931 by the Dominion Bureau of Statistics the population is slightly over 1,500 and nearly all of French origin. But all local records for the number of tourist visitors were broken this year when this sanctuary was seen by 22,000 visitors. Half of these, or 11,000, made the trip by small motorboat around Bonaventure Island, three miles off shore, to see the astonishing multitude of birds nesting on the ledges of the tall red cliffs.

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#### No. 74 --- The Porpoise Menace

Travelling along the shore of the St. Lawrence where it takes on all the outward appearances of the ocean, the tourist will notice in the distance, splotches of white amidst splashes of water which are surrounded by lakes of foam. A school of porpoises, the arch enemy of the cod fishers, is disporting itself in the sun-swept mighty stream. The white flashes are the bellies of the great fish and, as they hop out and fall back into the water, they send up miniature cataracts and geysers spurting into the air.

The porpoise is a most voracious inhabitant of the deep, and since, like all species of the whale family, he feeds mostly on small fish, he simply sweeps the waters of the smaller fry upon which the cod fish lives. The cod, as its food supply is gradually exhausted, is forced to seek his substance elsewhere, and migrates to

waters where the porpoise has not yet elected domicile. The white bellied whale may also attack and destroy a large quantity of small cod fish, and thus add to the destruction of the fisheries of the St. Lawrence.

In the old days porpoise hunting was quite a sport. Some clever devices were adopted to lure the great fish close enough so it could be either shot or harpooned. Fishers would stuff the skin of a dead porpoise with straw and so load the "dummy" that it would float in a natural manner, with its white belly just beneath the surface of the water: they would also paint the bottom of the skiffs and boats white, so that the porpoises would imagine that what they saw above them was one of their kind, and rise to the surface without suspicion.

The porpoise menace became so serious that the Government decided to wage a regular warfare upon the big fish. Boats were equipped with small guns and manned by expert fishermen, armed with high powered rifles. Planes were brought into play and by means of bombs and depth charges, attacked the schools of porpoises.

The Fisheries Branch of the Dominion Bureau of Statistics states that 577 porpoises were caught in 1935 but in 1936 only 28. The blubber when rendered supplies an oil which is nearly as valuable as that of the whale, the skin can be tanned and used for the manufacture of many leather goods, while the bone and the offal also have a certain market value.

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#### No. 75 --- Harvesting Sea-weed

At one time the industry of collecting and drying sea-weed was a very considerable and profitable one along the shore of the St. Lawrence River. Even today if you should pass through the village of Ile Verte, whiffs of salt laden, slightly pungent air would greet you. It is the iodine impregnated atmosphere wafted from the fields along the road where the sea-wrack grass, kelp and dulse are spread in the sun, like hay on a meadow. The weed when dried is used for upholstering furniture and automobile seats and making springy mattresses. It does not pack like wool and it is cheaper and easier to get than horse hair. It is also fire-proof and largely used in finishing boards for fire-proof buildings.

Ile Verte lies east of Riviere-du-Loup along the banks of the St. Lawrence. It takes its name from an island bearing the same name, some distance off shore. The island was named by Jacques Cartier and according to the most authentic records, the first settler was a Scotsman called Peter Fraser. Fraser was about 25 years old when he was given the island as a reward for his splendid conduct at the battle of the Plains of Abraham. He married shortly after he had established himself on his land and had five sons and one daughter. Many of his direct descendants still reside on the island. Another interesting thing about this island is the large lighthouse. It was erected over one hundred years ago and has been in charge of the same family ever since.

When in 1928, the word flashed around the world that the "Bremen", the first aeroplane that succeeded in crossing the Atlantic ocean from east to west, had landed at Greenly Island, and the news became known at Ile Verte (Green Island) a number of the villagers set out in boats to visit the island a little distance off their own shore, believing that it was there the trio of flyers had dropped from the air. They knew of no other "Green Island" in the St. Lawrence. The flyers had landed at Greeneley Island, Newfoundland.



The External Trade Branch of the Dominion Bureau of Statistics shows an export of \$14,000 worth of sea grasses and sea plants in 1936. Hong Kong took \$2,000 worth and the United States the rest.

#### No. 76 --- Airplane Clinics

About one third of the deaths among the Indians is due to tuberculosis according to a report of the Vital Statistics Branch of the Dominion Bureau of Statistics. Many of the deaths occur in the first year of infancy and among the young people up to 29 years of age. Children of school age suffer greatly from this dreaded disease.

During the past few years, under the services rendered by the Indian Affairs Branch of the Department of Mines and Resources, many of the reserves in the out-of-the-way parts of Canada have been visited by plane. Medicine and supplies were flown in and sick and injured Indians brought out to hospitals.

Now progress in stamping out diseases, especially tuberculosis, to which the Indians appear most susceptible is making its greatest strides through the attention given the children in the schools.

A complete diagnostic outfit including an X-ray and electrical generator to operate it was recently flown by chartered plane from Prince Albert to Indian residential schools at Lac la Ronge and Beauval in northern Saskatchewan where tuberculosis clinics are conducted. This was the first time that the facilities of a modern clinic were brought to the Indians by plane.

A large number of the residential schools have been surveyed so that all the pupils have been examined, many of them by X-ray. The school principal and his local medical advisor have had the benefit of the advice of a competent specialist and results are promising.

This new clinic of the air will be of great assistance to the five hundred doctors and dentists who have the task of protecting the health of about 115,000 Indians living in some eight hundred separate communities in Canada.

#### No. 77 --- The Iron Paint-box

Christmas over, it is not unusual to find paint-boxes and painting books scattered about the living room. A new box of paints brings the artistic instinct to the surface and when the enthusiastic ardour has used up all the red, the question arises "Where can I get some more?"

Now, Old Mother Nature has stored up beautiful colours in many minerals and iron is one of them. In the iron paint-box which is known to the chemists and manufacturers as mineral pigment or iron oxide, the colours are yellow, red and brown. Many of these iron oxide minerals are used in the raw or uncalcined state and all that is required to prepare them for the paint industry is washing, drying and grinding. Others have to be calcined or "burnt" to make them the required colour. Many of these oxides are also used to purify heating or illuminating gas, products of the coke and gas industry.

Some of the more important iron-oxide colours are raw ochre (yellow); raw sienna (dull yellow); raw umber (greenish-brown); Persian Gulf red; and Spanish red.

These are the uncalcined group. The calcined group has red ochre, burnt sienna, burnt umber, metallic brown and Canadian red oxide.

Raw ochre or yellow ochre is the French yellow ochre which has world-wide use and has been adopted as the standard for ochres. Sienna takes its name from the province of Sienna, Italy, the original source. UMBER or raw Turkey umber is a product from the isle Cyprus, exported through the port of Constantinople, in Turkey, and received its name thereby. Persian Gulf red has a crimson shade and comes from Ormuz island in the Persian Gulf. The Spanish red is not quite so bright in shade as the Persian and comes from the province of Andalusia, Spain, and is exported through the port of Malaga.

Last year Canada produced nearly 6,000 tons of iron oxides and imported nearly as much according to the Mining Branch of the Dominion Bureau of Statistics. The paints, pigments and varnishes industry used 700 tons of iron oxide pigments and 600 tons of ochres, siennas and umbers.

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#### No. 78 --- Rock Wool

Rock wool is soft, light, and fibrous consisting of interlaced exceedingly fine, flexible, glassy fibres. The wool is made by melting a suitable rock or mixture of rocks at a temperature approaching 3,000 degrees F. and then converting the molten rock into fibres, either by a blast of steam or air, or by a mechanical device. Reminds one of the pink candy fluff sold at fairs.

The use of rock wool has expanded rapidly in the last two or three years owing to its excellent qualities as a sound and heat insulator. It is both fire-proof and vermin-proof and of relatively low cost. Most of the output is used for dwelling house insulation and can be obtained in loose form in bulk, in batts, and in the form of nodules or pellets that can be poured or blown into spaces in the walls of houses already erected.

It may be of interest to note that the International Nickel's 500-foot chimney is insulated from top to bottom with the material. It is used for the insulating of electric stoves, refrigerators, tank cars, oil tanks and stills, steam pipes, water mains, air ducts, etc. and for making offices, theatres and radio studios sound-proof.

This industry was established in 1934. Except in the Niagara Peninsula, large deposits of rock of the proper chemical composition for the direct production of rock wool have not been disclosed in Canada, and, as a result, particular attention is being given to its manufacture by blending several rocks in order to obtain the correct composition.

According to the Mining Branch of the Dominion Bureau of Statistics the industry started out with a production of 229 tons in 1934. Five plants with a total capacity of 50 tons daily are now in operation, and the erection of several others is proposed. The output is marketed almost entirely within the Dominion.

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No. 79 --- The Fireplace in History

Now trees their leafy hats do bare,  
To reverence winter's silver hair,  
A handsome Hostess, Merry Host,  
A pot of ale now, and a toast,  
Tobacco and a good coal fire,  
Are things this season doth require.

So wrote Robert Herrick some time between 1591 and 1674. The heating apparatus used by our forefathers in those days was the open fireplace and as we have become converted to modern ways of heating, we do so with a certain amount of regret at the passing of "an old friend". Not infrequently, however, is one room reserved where one may lounge in comfort and dream luxurious dreams in front of the open fire.

Many interesting stories are associated with the fireplaces of olden times. One of the oldest coal fireplaces in England, which has served generations since soldiers first started fighting at the Crusades, is in the well-known inn "Ye Trippe to Jerusalem" underneath Nottingham Castle. The chimney itself is large enough to allow two men to climb to the top.

That last remark brings to mind that many of the old country mansions in England and Wales had fireplaces with flagstones which, when removed, revealed a monk-hole through which priests, in the days of persecution, were able to escape from the enemy and at the same time keep warm.

In the reign of Edward I a man was actually tried, convicted and executed for kindling a coal fire in his house. He disobeyed a decree forbidding householders to burn coal as a fuel. Centuries later "Earth Tax" payable to the Crown was levied on domestic fires, and at one time an additional tax known as "Smoke Farthings" was levied by the Church.

Then comes the cosy thought expressed by Honesworth Holt who says that he is of the opinion that "Old King Cole" had his origin in the flames of an open fire because its cheeriness conveys the feeling of contentment and good fellowship. "Where did the dear old gentleman originate from, if not from the hearth; in other words, from blazing 'cole'?"

If Santa Claus had to have a fireplace for every home he visited, carpenters would be very busy indeed for according to the 1931 Census of the Dominion Bureau of Statistics there are close to two million dwelling houses and we know there are plenty of homes without this unique way of entrance for Santa on Christmas Eve.

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No. 80 --- Casein

A recent report on the activities of the National Research Laboratories at Ottawa states that casein, the main protein constituent of milk, is used in Canada to the extent of many tons in the manufacture of buttons. Through research the proper methods for producing the best grade of casein from skim milk for this purpose have been developed, and furthermore, this information is now available to all dairy manufacturers and other interested parties in Canada.

Casein is the most important of the three protein compounds contained in milk and on the addition of acids or rennet the casein is precipitated, and the milk is said to have curdled. The natural souring of milk which has been kept long is due

to the formation of lactic acid. Rennet is employed to coagulate casein in the preparation of cheese, which consists of the casein and the fat contained in milk. The Latin word for cheese is caseus.

The industrial uses of casein are of great importance, and its preparation is carried out on a large scale. Dried milk, which is mainly casein when it is made from skimmed milk, contains the natural sugar of the milk. It is made on a large scale by leading milk on to hot revolving metal drums and scraping off the dried milk. Other methods are also employed.

Many plastic substances used as substitutes for horn, ivory and celluloid are made from casein and possess the great advantage over celluloid that they are non-inflammable. It is also used in the textile industry for sizing cotton warps, producing water-proof fabrics, non-inflammable photographic films, surgical bandages and paper coating, for clarifying wines, making water-paints, in soap making and leather dressing.

The Agricultural Branch of the Dominion Bureau of Statistics states that nearly one million pounds of casein were produced by the dairy factories of Canada in 1936.

#### No. 81 --- One British Possession in South America

The only British possession in South America is British Guiana lying along the north coast and flanked east, south and north by Dutch Guiana, Brazil and Venezuela. The Dutch first settled the territory but the present British colony was founded in 1814.

The area is 90,500 square miles or about one-quarter the size of the Province of Ontario. The population of 333,000 is 42 per cent East Indian, and 38 per cent African extraction. Portuguese number over eight thousand and other Europeans two thousand.

The chief agricultural products are sugar, with its by-products rum and molasses, rice, coconuts, copra and coffee. Next to sugar bauxite for the manufacture of aluminium was the Colony's most valuable export last year. Gold and diamonds and green-heart timber are other important products.

British Guiana is served with direct sailings from Canada and many tourists visit this tropical country when their own native land is covered with a blanket of snow. There they may see ships being loaded with commodities for the Dominion.

Canada is the second major market for British Guiana products and the value of the exports increased from \$4,511,000 in 1935 to \$4,643,000 in 1936. The gain was due largely to bauxite and molasses although sugar is Canada's largest requirement.

Imports from Canada were valued at \$1,314,000 a slight increase over 1935. First place among the suppliers of flour belonged to Canada. Increased shipments of pickled meats; peas and beans; cheese; cement; metal furniture, motor cars; paper and rubber shoes were noted. Recent importations from the Dominion of textiles and wearing apparel such as hosiery, hats and ladies' footwear showed moderate but encouraging increases. Decreases were shown in potatoes, oilmeal, oats, manure, condensed milk and machinery.

This information was based on reports from the External Trade Branch of the Dominion Bureau of Statistics.



No. 82 -- The Wheat Mixing Law

A report in the Commercial Intelligence Journal of December 11, by the Canadian Trade Commissioner in the Netherlands runs as follows: "With no currency restrictions, a comparatively low milling percentage for the home-grown product and without a high import duty, the Netherlands is one of the few remaining important purchasers of foreign wheat. As a traditionally free trade country and all adapted for the production of cereals, the Netherlands was one of the last nations of Europe to interfere in any way with the grain trade. Up to the middle of 1931 only foreign wheat which was admitted without restriction was used by Dutch mills grinding white flour for ordinary bread making purposes. The domestic crop, which averaged about six million bushels a year, was used exclusively for feeding purposes and for the manufacture of whole wheat flour".

The Wheat Mixing Law of 1931 prescribed that bakers must use flour containing a specified percentage of home-grown wheat. It was then apparent that the domestic milling industry would have a monopoly on the inland market and that the import trade would cease entirely. In order to prevent this and give the flour importers a chance, further legislation allowed the continued use of limited quantities of unmixed flour.

Before this Law was introduced the Netherlands was one of the leading flour markets of Europe with annual imports averaging 150,000 tons. In 1935 they had dropped to 42,000 tons and in 1936 to 63,000. The United States supplies most of the imported flour now because of a commercial agreement between the two countries.

According to the External Trade Branch of the Dominion Bureau of Statistics, the exports of Canadian flour to the Netherlands was 296,000 barrels in 1929 and 104,000 in 1931. This has dropped to 50,000 barrels in 1935 and 61,000 in 1936.

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No. 83 -- Densities of Population

Density of population simply means the number of people for every square mile of the land area. If the density is one, then one person would have one whole square mile of land for himself or, if the density is 200, one person hasn't very much of the square mile.

We hear a great deal about over-population in different countries today and their demands for more room for their people. Here is the picture as given by the Statistical Year Book of the League of Nations.

Belgium, the peace-loving little country, has the greatest density of the 25 countries listed. There are 698 people for every square mile of land. The Netherlands follow with 606. The United Kingdom, including the Channel Islands and the Isle of Man comes third with 491.

Then follow in order Japan with 470, Germany 361 and Italy 344. China's vast area has a population density of 235. That is less than the teeming population of British India where there are 248 persons per square mile.

Poor war-torn Spain whose population density in 1930 was 121 will probably have a greatly reduced figure by now. In 1934 mysterious Russia in Europe had a density of 58 persons.

It makes one breathe more freely when the United States shows 41 persons but the figures for Canada and Australia make one absolutely lonesome. In Australia two

people would share a square mile while in Canada it would be three. If the Territories were left out, Canada's population density would be five.

Of the Provinces, Prince Edward Island has the greatest density amounting to 40 persons. Nova Scotia follows with 25, New Brunswick 15, Ontario 9, Quebec 5, Saskatchewan 4, Manitoba 3, Alberta 3, British Columbia 1. The Yukon shows one person for 50 square miles and the Northwest Territories one for every 100. No wonder it's the land of silent men and, who knows, maybe the occasional woman.

The figures for Canada are based on data supplied by the Census Branch of the Dominion Bureau of Statistics.

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No. 84 --- Holly and Poinsettia

Next to the Christmas tree in popularity is holly. Maybe someone will disagree and say mistletoe, but a sprig of white berries is certainly not so colourful as a bit of holly with its cheery red berries.

Holly trees or shrubs are mostly inhabitants of temperate regions. The flowers are white and usually inconspicuous. The fruit is the attraction; the scarlet berries nestling among the glossy green foliage make a beautiful sight.

Many people cultivate the tree simply for its ornamental value, others use it for a hedge as well. Not only is the tree valued for its fruit but it is also put to other uses. The inner bark contains a sticky substance which when softened in water makes birdlime. Birdlime is smeared on twigs to catch small birds. The wood of the tree is ivory-white, fine-grained and hard and is used for inlays.

Most of the holly used in Canada is said to grow in British Columbia, as unfortunately, that species used and known as English holly, is not hardy in any other province. Last year an owner of a 28-acre holly farm at Victoria/said he shipped nine tons of the Yule-tide evergreen.

The great vermilion poinsettia for decoration belongs to a family of plants which have their upper leaves brightly coloured and whose true flowers are yellow or green and are too inconspicuous to be readily seen. The plant grows to a height of six feet or more and is a greenhouse plant in many countries. It is a native of South America and Mexico.

There is no figure obtainable for the production of Canadian holly but the Agricultural Branch of the Dominion Bureau of Statistics reports that over 15 thousand poinsettia were sold by the nurseries in 1936.

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No. 85 --- Adrift

Remember Homer's poem describing the wanderings of Odysseus on his homeward voyage to Ithaca after the battle of Troy, how his homecoming was delayed for ten years and in travelling far and wide lost all his comrades? Well, in the museum of the Forest Products Laboratories at Ottawa there is a weather-beaten forest fragment which has made an Arctic odyssey.

Tempest tossed, ice-worn, and greyed from exposure in Arctic waters a lone piece of driftwood was picked up in Bellot Strait on September 6, 1937. You can trace



its journey of some 1500 miles from the mouth of the Mackenzie river around McClintock Channel and Franklin Strait to Bellot Strait which divides Somerset Island from Boothia Peninsula, the most northerly point of the mainland on the North American continent. It must have come this way as adverse currents render any other route improbable.

The stump is about six inches in diameter and three and a half feet in length and was identified as black spruce. A count of the annual rings indicate that the tree was over one hundred years old before it was uprooted. It is not the age or size of this satin grey piece of driftwood that is of interest, however, but the fact that it made the Northwest Passage is what stirs the imagination. The definite locality from which it came will never be known nor the time occupied in its long tortuous journey, but from Bellot Strait to where trees of this size grow is far away, indeed.

On account of its small size black spruce is not so important a lumber species as white spruce, but it is a very valuable pulpwood. As sawn lumber in Canada, spruce, in volume of output, is second only to Douglas fir but, when its use for pulp and paper is also taken into account, it is Canada's most important wood.

According to the Forestry Branch of the Dominion Bureau of Statistics over five million cords of spruce and balsam went into the manufacture of pulp last year.

#### No. 86 --- National Park Films

Where are you going to spend your summer holidays this year? Rather early a question perhaps but, if you are like most of us, you will have to start now putting nickels and dimes away. Make up your mind to see something of Canada. If you have been fortunate enough to see the two new motion pictures recently produced by the National Parks Bureau "Colourful Days in Prince Albert National Park" and "Playgrounds of the Prairie" you will realize that this country is more wonderful than you had dreamt.

These films have been produced in natural colour and bring to the screen the scenic, recreational and wild life features of the National Parks. But these are not the only films produced by this Branch. The library of the National Parks Bureau contains more than 1,300 prints on 84 subjects which are available to conservation societies, universities, schools, writers, lecturers and other organizations and individuals interested in wild life conservation and in making known the many attractions of Canada's national playgrounds.

These films are now in circulation in the United States, Great Britain, France, Austria, Czecho-Slovakia, Holland, Norway, India, Australia, New Zealand, Hawaii, South Africa and the British West Indies as well as throughout the Dominion.

From a questionnaire sent out by the Education Branch of the Dominion Bureau of Statistics to all types of educational institutions -- city, rural, teacher-training and private -- the returns show that 131 reported they made use of films on travel and geography and 38 on nature study.

#### No. 87 -- Early Toys

We are told that the rarest of all relics from the past are toys. The playthings which got lost or were placed in the tomb to amuse a grown-up in the hereafter

have given us an insight into the habits and customs of early civilizations.

Animals carved out of limestone dragging wooden carts on wooden wheels have been found in the excavations where once a Persian temple was built. Tiny bakeshops, hair dressing establishments and small scale ships and houses have been found in the old Egyptian graves.

Some of the earliest dolls came from Egypt. They were made of wood; sometimes just a stick covered with rags, sometimes elaborately carved. Wool dolls have also been found. The Greeks used terra cotta, a mixture of clay and sand which was heated or burnt, and covered it with a colourful glaze.

Mechanical toys seem to be almost as old as the nursery itself. In ancient Egypt, in tombs, there were discovered a crocodile whose jaw moved up and down when he was dragged along, bakers kneading their bread and a mongoose tackling a snake.

The people of the Middle Ages were essentially mechanically minded. Toys reflected this. Birds in cages would flap their wings and even whistle a tune. Whole villages of men and women were made to do everything the people in a real village would do.

The following eras of the Renaissance and the Reformation were followed by a century of religious warfare. When the wars came to an end people felt that the younger generation should be provided with a better education. So toys of the 17th and 18th centuries were meant not only to amuse but to instruct.

When we think of the variety of toys on the market today, exact in every detail, we wonder what next. What effect will they have upon the children who use them?

The import of mechanical toys about doubled in 1936 when their value amounted to \$258,000. According to the External Trade Branch of the Dominion Bureau of Statistics most of them came from the United States. Germany, Japan and the United Kingdom supplied the rest.

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#### No. 88 --- Gift Bells

The largest bell in the world was a gift. It was the present of an empress but it was never hung nor rung. It weighed about two hundred tons and was broken while still in the casting pit during the great fire which swept Moscow in 1737. But the people used it for a chapel, entering through the "doorway" made by the fracture.

The world's largest ringing bell was a gift, too. It hangs in the Kremlin and weighs about one hundred tons. It was the gift of a czar and hangs in the Ivan Tower along with over 30 more gift bells.

The second largest bell in the world is in an ancient Buddhist temple in Japan. It is literally covered with inscriptions and the names of those who contributed to its cost.

A native king of Burma wished to be remembered as the ruler who cast the largest bell. The Great Bell of Mandalay was made and is large enough to let a football team lounge comfortably within it. This ninety ton bell is surrounded by the Royal family -- so the legend goes -- for in the massive walls of its unfinished pagoda are buried one hundred images of members of the king's family, each done in solid gold.



The Great Bell of Peking has a tragic legend attached to it. The Emperor of China ordered the bell in 1420. Twice the casting failed to hold together and the Emperor was furious. He threatened the bell founder with death. The story goes on to say that a famous astrologer told the founder's little daughter that blood was needed to make the bell hold together. So to save her father's life, she stole into the great bell at night and hurled herself into the boiling metal. In the echoes of its sweet note, the Chinese hear the voice of the little girl.

Just as in the days of old when the holy man called the people to worship with a little hand bell, so the churches throughout the world ring bells, little or great, today. In 1936 bells for the use of churches were imported to the value of \$24,000, according to the External Trade Branch of the Dominion Bureau of Statistics. They came from the United Kingdom, the United States and France.

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No. 89 --- They Cut Down the Old Pine Tree

A copy of the "Canada Lumberman" carries two delightful stories about pine. Somehow or other we lose sight of the fact that the lumber industry has in large measure been the origin of our greatness as a nation and also the hope of our future progress. There is a Scottish proverb which tells us not to forget the cradle in which we were cradled. So here are two stories to jog our memories about the faithful pine tree.

The first comes from near Albuquerque, New Mexico, where an old pine tree was cut down. Timber experts who examined a cross-section of the trunk estimated that the tree was "born" about the time the Pilgrims left for America. They counted 311 annual rings. The tree, one of the largest in the mountain forests in that section, produced 880 feet of timber --- enough for at least twelve "coffins of pine" or a whole chorus of hill-billy singers.

The second story is about one of Canada's many ancient wooden houses. The building is 147 years old and was built of white pine. It is still occupied by the descendants of the owner and is visited by many people who are interested in such a remarkable relic of early days in Ontario.

The interior layout indicates the methods of life of our Ontario forefathers. Nearly all houses built in those days were similarly planned.

On the ground floor there is a large dining-room and two bedrooms -- one for the parents and one for the minister, who presumably lived with his flock, changing homes from time to time. The kitchen was generally in an adjoining room, frequently under a separate roof. The first floor was one large room occupied by all the girls in the family and the top flat, also a single room, was for all the boys. This particular house was the home of no fewer than 16 children; all the sons stood six feet and over.

White pine has throughout the years been a good friend to man. The Forestry Branch of the Dominion Bureau of Statistics tells us that about 250 million feet of white pine were cut in the lumber industry last year.

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No. 90 --- Shoes

There is an ancient legend that tells of the first pair of shoes. Many, many

years ago a great ruler demanded that wherever he walked there must be a carpet laid so as not to dirty or hurt his feet on the ground. Unfortunately one day he stepped off the carpet and the royal feet trod upon the rough stones. Then he ordered that his whole kingdom should be covered with carpet. His wise men told him that it was impossible. He gave them a day to solve the problem.

At the twenty-fourth hour a poor leather apron-maker appeared before the king. He knelt and presented two queer-looking objects. The king was amazed but the problem was solved. Wherever the royal feet went, they were protected by a pair of shoes. In gratitude the ruler permitted all his subjects to enjoy the benefits of the strange, new invention.

At one time in the history of the Roman Empire different types of shoes were worn to indicate the various social classes. Only a magistrate could wear red shoes, and only senators wore black shoes with a gold or silver crescent at the top. Slippers were for comedians and shoes for tragedians. The Roman army was well-shod, an important factor when soldiers have to march and travel on foot. When the Roman legions went to invade foreign countries, a staff of shoe-makers went along also.

Shoes of the Middle ages were not made for comfort evidently. The most freakish shoe of this period was the "poulaine" worn by the dandy. It was made of soft leather and had a toe so long that it was necessary to place moss in it so that it would not double under.

"Duck bill" shoes which were sometimes eight inches in width, appeared during the reign of Queen Elizabeth. In the sixteenth century, attendants had to accompany ladies when they wore "chopini" to keep them from falling over. Chopini were clogs with a wooden heel and a sole ten inches thick.

During the eleven months ended November, 1937, about 23 million pairs of shoes were made in Canada according to the Animal Products Branch of the Dominion Bureau of Statistics.

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#### No. 91 -- Canadian Housing

In 1931 the Census Branch of the Dominion Bureau of Statistics collected data concerning the housing of the Dominion. There were close to two million dwelling houses, over a million of them in the rural sections and 982,000 in urban centres. A dwelling house, according to census classification, is a place in which one or more persons regularly sleep. It may be a room in a factory, a store or office building, a boat, a tent, a railway car, or the like. A building containing apartments or flats counts only as one dwelling house.

The number of separate structures was 2,214,000 of which 1,678,000 were single houses, 354,000 apartments and flats, 32,000 rows or terraces and 142,000 semi-detached houses. A separate structure is defined as any room or set of rooms used for habitation and having separate access to either the street or a common landing. A row or terrace is a long building divided off into separate houses and a semi-detached house is one divided into two separate dwelling places.

The six-room unit is the more common in Canada but it is not typical in all parts of the Dominion. In rural areas the greatest number are four room houses. Nearly 60 per cent of the Canadian households occupy from four to seven rooms, 20 per cent three rooms or less and only 3.5 per cent more than ten rooms.



Rural homes in the Maritimes are larger on the average than in any other part of Canada. In Quebec they range from four to eight rooms. Ontario's are usually six-roomed. In the Prairie provinces conditions are quite different. Over 60 per cent of the rural homes contain four rooms or less. In Alberta and Saskatchewan there are more rural households occupying two rooms than any other room group. In British Columbia the four room home predominates with more households occupying fewer than four rooms than those with more than that number.

Urban homes are more uniform throughout the Dominion, the average ranging from four to six rooms.

#### No. 92 -- Fish Meal for Germany

About ten years ago Germany was an important buyer of Canadian fish meal, but with the introduction of currency transfer and other restrictions this trade has practically disappeared. However, the Payments Agreement between Canada and Germany of 1936 specifies that 1.4 per cent of the money received by Germany for the sale of her exports in the Dominion shall be made available for the purchase of Canadian fish meal.

Fish meal is used for feeding purposes in Germany where the prohibition against the feeding of bread grains has led to an increased demand for other cereals and for concentrated food. Corn and potatoes are being used but because of their high starch content, albumen foodstuffs must be added to give a properly balanced diet. Fish meal fills this need.

This industry was of little importance thirty years ago in Germany. Any meal produced was of rather low-quality and was used as a fertilizer. After the War it was used solely as a feedstuff and there followed an improvement in quality and quantity. Japan also became an important producer at that time. Norway and Japan are the two principal countries supplementing Germany's domestic manufacture.

To obtain the highest possible increase in output, all raw material must necessarily be used as quickly as possible after it becomes available. Fish spoils so quickly. In addition to the ordinary waste, all fish which remain unsold as well as rejected fish and fish products, must be delivered to the fish meal manufacturers. Under the new market regulations, production is increasing although, owing to the heavy demands for feeds, the imports are twice as great as the domestic supply. Every effort is being made in Germany to correct this.

Figures supplied by the External Trade Branch of the Dominion Bureau of Statistics show that during the year ended March 1937, 323,000 pounds of fish meal were shipped to Germany from Canada.







Canada. Statistics, Dominion Bureau of

11-D-02

DEPARTMENT OF  
TRADE AND COMMERCE



**A FACT A DAY ABOUT CANADA**

FROM THE

**DOMINION BUREAU OF STATISTICS**

**JANUARY 1938**

**FOURTH SERIES**



Published by Authority of the HON. W.D. EULER, M.P.,  
Minister of Trade and Commerce.

Price 25 cents per annum



## Contents

- |                                       |   |
|---------------------------------------|---|
| 93. A New Year's Resolution.          | 108. Cattle Outside in Winter.                |
| 94. Fatal Accidents.                  | 109. The Canadian Home.                       |
| 95. Dangers Crowd Upon Us.            | 110. Two Kinds of Homes.                      |
| 96. Industrialists Are Careful.       | 111. The City Home.                           |
| 97. Industrial Minerals.              | 112. The Rural Homes                          |
| 98. Effect of Machine Age.            | 113. Most Houses Are of Wood.                 |
| 99. Spirit of Co-operation in Mining. | 114. The Slums.                               |
| 100. Sulphur.                         | 115. Occupational Trends 1.                   |
| 101. Asbestos.                        | 116. Occupational Trends 2.                   |
| 102. Talcum, Gypsum and Graphite.     | 117. Occupational Trends 3.                   |
| 103. Garnet for January Birthdays.    | 118. Occupational Trends 4.                   |
| 104. Beer Eaters.                     | 119. Occupational Trends 5.                   |
| 105. Meat for Early Settlers.         | 120. Occupational Trends 6.                   |
| 106. Beer Cattle.                     | 121. The Pea-viner.                           |
| 107. The Ox on the Farm.              | 122. The Tin Can.                             |
|                                       | 123. The Most Important Branch<br>of Canning. |

James Muir,  
Editor.

A Fact a Day about Canada

from the

Dominion Bureau of Statistics

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No. 93. Sat. Jan. 1, 1938 -- A New Year's Resolution.

This is the first day of the New Year. Let us make a good resolution for 1938. It is a resolution to do everything possible to avoid accidents. It is appalling to learn that there are between six and seven thousand deaths in a year as the result of accidents in Canada and it is the more distressing to realize that a great many of these -- the large majority in fact -- could have been avoided if a little foresight and care had been exercised.

It is not too late yet, now that the Christmas and New Year celebrations are over, to make a good resolution in connection with what statistics demonstrate clearly to be the most outstanding danger of the present age -- from a domestic point of view, of course. We are not talking of war -- the tragedy of Ethiopia, Spain and China -- but rather of the worst danger that confronts us in the daily routine of our lives.

Accidents -- the ever present danger of accidental death, of being hurt, or maimed for life; the threat of becoming a burden to ourselves, our families and the community in general, accidents are possible at every twist and turn of day and night. There is danger in our homes, at our places of business, everywhere, but the greatest menace of all is on the city street and the country highway. Death and injury face us, and we know it, from the moment we enter an automobile until our journey ends.

In the railway train and on the good ship at sea the danger is so comparatively slight that it hardly enters into our calculations when we purchase a transportation ticket, but on the road, even on the little driveway before we reach the road, in the car we so fondly prize and in which we start out so joyously, the prospect is hazardous. We talk glibly about the danger from "the other fellow", and make excuses for ourselves with that platitude, yet to him we are also "the other fellow". This is no idle talk. We shall present in a few minutes the fatal casualty figures and you will agree that they are alarming.

There is an automobile for every nine persons in Canada, which makes a huge total in proportion to population. We have about one and a quarter million registrations in a country of eleven million people.

A distinguished Ottawa clergyman who recently came to the Capital from a western city, speaking from his pulpit two Sundays ago, warned his hearers of this growing danger and urged upon them the resolution, phrased pithily, that they would go round the corners of life on four wheels and never on two.

Care is needed everywhere, even in a church. A year ago there was a remarkable accident in a Montreal place of worship. There had been a special party at which a lady had acted as Father Christmas. Dressed in her Santa Claus costume she went to the church basement to assist in the preparation of refreshments for the guests. While lighting the gas stove her costume caught fire, and she was badly burnt before the flames were subdued. She had to be rushed to a hospital to save her life.

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No. 94. Sun. Jan. 2, 1938 -- Fatal Accidents.

It is astonishing to find that close to half of all the fatal accidents occur in and around the home. The premature passing of young children and of old people is striking. Young children have to be watched closely to avoid trouble, but at the same time a great many of the fatalities that occurred were due, not so much to the waywardness of the youngsters as to the carelessness of their parents or guardians. Here is the record. Six hundred children under five years of age were fatally injured or killed outright in 1936, whereas between the ages of five and fifteen, or twice the period of years, there were just over five hundred accidental deaths. The children of the older ages were better able to take care of themselves. The 1936 figures are given because the 1937 record is not yet complete.

The variety of causes of accidental death among infant children, that is, children under one year, is extraordinary. Twenty infants were suffocated while sleeping with their parents; 28 were smothered by bedclothes or by rolling over on their faces. Eight more were suffocated but no details were given the Bureau. A cat slept on a child's face and smothered it. Another baby got its head through the bars of a crib and died. Two fell into a tub of hot water and one touched an electric toaster. Twenty-two died of the summer heat. Some were poisoned and several burnt to death.

Mention of heat brings to memory the furore that was created when Rudyard Kipling wrote of Canada as "Our Lady of the Snows". A great many people worked themselves up into a rage because they thought it was bad advertising for Canada. Had they taken the trouble to examine statistics they would have cooled off right away. The crisp winter weather of Canada is all right. In a previous talk we have shown that Canadians are longer-lived than people who live in more southerly climes.

There is another important fact which serves to bring out clearly what may have been in Kipling's mind when he spoke lovingly and appreciatively of "Our Lady of the Snows". While there were 60 deaths from excessive cold in Canada in 1936 no fewer than 814 persons died from the excessive heat of summer.

The people of Ontario and Manitoba will remember the heat wave in July 1936, for it struck these two provinces more than the rest of Canada. It lasted for ten days and caused 780 of these 814 deaths. It was unusual. In July, 1935, there were only 42 deaths from excessive heat.

Perhaps Kipling's ode would not have aroused so much indignation had it not been for a supposedly reputable English geography which taught school children of that country that farm labourers were frequently frozen to death when harvesting wheat on the Prairies and milk was delivered in Canadian cities in frozen cakes.

We have got over all that now and we rejoice in our winters. Famous actresses and leading lights from all over the world come to Canada for a winter holiday to build up their physique in the bracing atmosphere. We don't like so well, or say we don't, which may be the same thing, these mild winters we have been having lately. We are told they are not so healthy and we are quite ready to believe it.

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No. 95. Mon. Jan. 3, 1938 -- Dangers Crowd upon us.

Dangers still crowd upon children between the ages of one and five but they are learning to look out for themselves better and the rate drops from about 160 accidental deaths under one year to an average of about 110 a year. More little boys are killed than little girls; they are supposed to be more daring, more ready for mischief.

Three were playing with matches but they were all girls. The most common accident was drowning. There were 84 such deaths. They fell not only into lakes and streams but into wells, water barrels, troughs and ditches. Seventy lost their lives through motor cars. Some were playing on the street when they were hit. One child had its head caught in the window of a motor car. A little boy was strangled by buggy harness. Another child died in a grass fire, and one poor little thing was found lying frozen beside its murdered mother.

As children grow older they still have the habit of playing with matches and more girls met death from that cause than did boys. Very probably that was because of the more inflammable clothing the girls wore. One hundred and thirty between the ages of five and fifteen were struck or crushed by motor cars. Twenty-six lost their lives by being shot, (these 22 rifles being largely responsible) and six came in contact with live wires.

It is impossible in the time at our disposal to indicate all the causes of death in people of mature years. Our newspapers make us familiar with most of them, but some are very unusual. One young farmer was driving a horse rake and carelessly had the lines around his neck. The horses bolted and he fell backwards. Another lad somehow got the tail of a horse wound around his neck. A fisherman was bitten by a codfish and a man cranked his car while it was in gear. Five men fell when intoxicated and eight were kicked by their horses. Three met death when trying to board moving trains. A crust of bread stuck in one man's throat and choked him.

Amongst people over 70 years of age, a very common cause of death was falling out of bed, falling off chairs, breaking limbs. Most of these were women. Seven of the old men were kicked by horses, one was attacked by a bull and two by cows. One old lady was attacked by a collie dog. An old man set fire to his clothes when lighting his pipe and another while lighting a match under his chair, which is quite a common habit. A lady upset a pot of boiling potatoes, and another was scorched when her comb caught fire. A gentleman was drowned in trying to cross a river on horseback just as he had done successfully since boyhood. A lot of people, who should have known better, lit their fires with coal oil, and one or two with gasoline.

It will be apparent from the foregoing that most of these fatal accidents would have been avoided if a little more care had been taken. The toll of death will be less this year if the good resolution is remembered and lived up to.

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No. 96. Tues. Jan. 4, 1938 -- Industrialists are careful.

One fact stands out very prominently when the record of fatal accidents is examined. It is the surprisingly small number of fatalities, comparatively speaking, that occurred in industrial operations. Conjure up for yourselves the picture of the whirling machinery, the buzzing saws, the electric currents, the deep mines, the high buildings, the hundred and one chances a man takes when he performs a day's labour. Contrast the result when you find that there were about 2,800 accidental deaths in and around the homes of the people and fewer than one thousand in industry.

The reason is clear. Great care is observed by men in charge of their fellow men -- the employers, the managers and their foremen. Responsible men heed their responsibilities. Laws are rigidly enforced, and a great many of these thousand fatalities would not have occurred if the employees had been particular in carrying out their instructions. It is abundantly evident that the cause of most fatal accidents can be traced to some carelessness on the part of somebody.



And now we come back to the automobile. That wonderful piece of mechanism which modern science has given us for useful and pleasurable transportation, is being abused by careless people and the price of that carelessness is being paid. It is a high price.

More fatal accidents are caused by motor car drivers than can be attributed to any other cause, and the authorities are disturbed over the situation. Considerably more than one thousand persons lose their lives annually in this Dominion in some mishap connected with a car or truck. In the first six months of 1937 there were 576 deaths from such accidents. That was 158 more than in the same period of 1936. It is at the rate of 1,150 a year.

Speed, recklessness, carelessness, alcohol, poor judgment, lack of skill in driving and faulty equipment were the direct causes of most accidents in connection with motor vehicles but HURRY was the factor behind almost all of these and most of those driving in a frantic hurry had little or no reason to do so.

Although we are being constantly advised to consider safety first most of us become more or less callous to such warnings.

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No. 97. Wed. Jan. 5, 1938 -- Industrial Minerals.

During the past few days the Canadian people have been made acquainted with the fact that the mineral production of the Dominion in 1937 constituted a new high record. It is now coming close to the half-billion dollar mark. Records have been broken in almost every direction. Gold, copper, nickel, lead, zinc, platinum metals, asbestos and salt all reached new peaks. A number of less known metals and minerals also set new standards of output.

The advance was extraordinary; it was 25 per cent greater than in 1936. There seems to be almost no limit to the heights to which Canadian production may aspire in the next few years.

It is worth while for a moment to cast our eyes backward and examine the why and the wherefore of the gains that are being made in mining.

The significance of mining was enormously increased by the industrial revolution which was in a very real sense the mineral revolution. Probably more than 97 per cent of the output of minerals in recent years has come into existence in the last 150 years. From major dependence upon materials of vegetable and animal origin, the western world passed within a century to major dependence upon the minerals.

Great changes have taken place in these 150 years. Steam power and iron ships created a revolution in ocean carrying and in the last quarter of a century we have seen the displacement of animal by automotive transport.

Minerals are the essence of industrialism. They are the chief bases of the chemical industry. They are largely employed in construction. Minerals are the foundation of transport which is the greatest of all consumers of metal and power. Modern war has been described as a chemical reaction built up around the metals, the nitrates and the coal tar derivatives.

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No. 98. Thurs. Jan. 6, 1938 -- Effect of Machine Age.

The arrival of the machine age has compelled an extraordinary and astonishing draft upon the underground resources of the world. Statistics show that in the hundred years between the Battle of Waterloo and the Battle of the Marne the white population of the world increased three-fold but the consumption of metals and mineral fuels increased about one hundred-fold.

Two characteristics of mining stand out prominently. First there is the marked concentration of the production of certain minerals in certain regions and localities. Half a dozen regions produce three-fourths of the world's requirements of iron ore, although iron resources are available in almost every country. We have iron ore in Canada but we get our supply from abroad. In other cases there is the localized occurrence of mineral deposits. Most of the world's radium comes from a single mine in the Belgian Congo. Canada is the second largest producer, but the total world production to date is less than thirty ounces.

The nickel supply of the world is got in Canada and New Caledonia -- 90 per cent from this Dominion. Most of the tungsten comes from south-eastern Asia.

The second characteristic is chance -- the chance of discovery. All business and industry are subject to change and upset, one cause being the change in habits of the consumer. The Paisley shawl has given way to the tweed coat. Mining, however, is subject to the chance of discoveries. Until the closing years of the last century, Sicily supplied the world with sulphur. The industry appeared to have an established future. Suddenly, however, the Sicilian sulphur future was shattered when a process was discovered by which sulphur was taken from alkali waste. Sulphur from North America competed in Europe with the Sicilian product. An agreement was reached to parcel out the world market in order not to destroy the industry in Sicily, but it has been much impaired.

Russia and Colombia had at one time a virtual monopoly of platinum but the discovery of that precious metal in South Africa and in the nickel-copper ores of the Sudbury District in Ontario completely altered the situation. Canada is now the leading producer.

The outstanding characteristic peculiar to mining is the exhaustibility of a mineral. The richer deposits are always attacked first and, when these are exhausted, the leaner ores and greater depths mean rising costs.

No. 99. Fri. Jan. 7, 1938 -- Spirit of Cooperation in Mining.

The thought persists as one views the tremendous growth of the mining industry, that it is a wonderful exemplification of the spirit of cooperation. We need not dwell upon the very obvious assistance man has had from the better known metals found in Canada, such as iron, copper, lead and zinc, but confine our thoughts to some others that have also contributed largely to the wealth and comfort of the race.

In the classifications of the mining industry there are certain products that are described as "industrial minerals". These include asbestos, feldspar, gypsum, salt, sulphur, talc, etc.

Salt is the industrial mineral which has the most varied uses. Few things in this world are indispensable. Water and air are the most obvious. Less obvious but equally essential is salt. A package may be purchased for a few cents but it is



more valuable than gold, it is worth more than all the diamonds of Africa. Life itself depends upon salt; without it all living things would disappear from the face of the earth. Salt, or products derived from salt, enter into our soap, drinking water, textiles, paper, food, even the bottles in which our milk is delivered. It helps us to build roads. Gasoline is refined by chemicals derived from salt. Cattle on the farm are fed salt. There are fifteen hundred recognized uses of that industrial mineral. Canada's production last year was close to half a million tons. We imported considerable quantities also, notably for the fisheries.

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No. 100. Sat. Jan. 8, 1938 -- Sulphur.

Just like salt, there is a scientific romance connected with sulphur. Until the last two or three years sulphur in the waste gases from the smelter plants was being lost in the atmosphere; now it is being harnessed and recovered, and there will be plenty of it to mix with the molasses the mothers give their children when the spring freshets flood the brooks and rivers.

When we give sulphur its other name "brimstone" we associate it with the fumes that are said to come from that undiscovered region over which Mephistopheles holds sway and to which bad people on this earth are believed to be sent.

But sulphur, or brimstone, is one of our most useful non-metallic elements. Its common ore is of a golden yellow colour which has brought tragic realization to many a prospector when he discovered what he thought was gold but found to be only pyrites. We employ it in fumigation, for the manufacture of sulphuric acid and as a component of gunpowder and other mixtures. Every schoolboy who has studied science at all gets to know the smell of sulphuretted hydrogen; it is like very rotten eggs.

Sulphur is used in medicine, in the pulp and paper industry, in making fertilizers. It is invaluable as an insecticide. The manufacturers of paint and varnish make use of it, so do the makers of dyes and rubber. The Canadian output was 144 thousand tons, but we import a good deal more than that, chiefly from the United States. Texas is the great producer.

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No. 101. Sun. Jan. 9, 1938 -- Asbestos.

The story of asbestos is one of the most attractive in the whole range of mining. The use of it goes back to the Romans. They wove the brittle fibres with linen threads to make burial cloths in which to wrap their dead, in order to retain the ashes when the body burnt on the funeral pyre, for asbestos is fire proof. Plutarch records the use of asbestos in the wicks of the lamps of the Vestal Virgins. Marco Polo noted the use of it in Siberia in the 13th century.

All knowledge of the mineral, however, was buried with the past, for it was not until 1838, when it was rediscovered in the Italian Alps, that it became known to the modern world. Even then it was not until 1878 when it was discovered in large quantities in the Thetford and Coleraine hills in the Eastern Townships of Quebec, that any real progress was made in the industry. Since then its exploitation and development has been rapid and today asbestos, in one form or another, is indispensable in the electrical and engineering worlds, and plays an important part in our domestic life.

From the point of view of value asbestos is Canada's most important non-metallic mineral, other than coal, and Canada is the world's greatest producer. In 1937 the

output topped all previous records with close to 400 thousand tons. The value at the mines was over 14 million dollars. The production is entirely from the Eastern Townships of Quebec. Explorations have disclosed reserves of the mineral sufficient for many years to come. Other large producers are British South Africa and Russia..

The volume of asbestos consumption depends largely on two great industries, automobile manufacture and the building trades. Large quantities are used in heat insulation or as a constituent of asbestos-cement products, such as roofing and wallboard.

No. 102. Mon. Jan. 10, 1938 -- Talcum, Gypsum and Graphite.

When a young lady gazes into a miniature mirror and dusts her nose in public, which appears to be quite the thing nowadays, she may be using talcum.

Although talc is employed in making talcum, face and compact powders, its most frequent use is in making paint, paper, roofing and rubber. More than a score of countries have talc but the largest producers are the United States, France, China and Italy. The Canadian talc production comes chiefly from Madoc in Ontario. Soapstone products come from the Eastern Townships of Quebec. Soapstone is essentially an impure talc which, when pulverized, is used for the same purpose.

The usefulness of feldspar to the general public is very great. It helps to make glass containers and illuminating glassware. The potters use feldspar and the manufacturers of that beautiful enamel and sanitary ware that we have now in our bathrooms demand large quantities of that industrial mineral. There is feldspar in our porcelain-enamelled flatware and in our refrigerators. The production of feldspar last year was about 18 thousand tons. Most of our output goes to the United States.

Then there is gypsum, which we get from Nova Scotia, New Brunswick, Ontario, Manitoba and British Columbia. A large proportion of the Nova Scotia output is exported in the crude form while that from the other provinces is calcined, or heated, and manufactured into various gypsum products, such as wallboard, blocks, insulating material and acoustic plaster. We don't see the plaster bound with horsehair any more except in some old buildings that have withstood the ravages of time. Canada's production of gypsum last year was over one million tons which was a considerable advance over 1936.

Exceptionally high-grade graphite is got from the Black Donald mine in Renfrew County, Ontario. It is now being used in the manufacture of pencils, a market which at one time was enjoyed almost entirely by Mexican producers.

No. 103. Tues. Jan. 11, 1938 -- Garnet for January Birthdays.

Most people think of the garnet as a deep transparent red kind of gem, but there are also green and yellow varieties. The name "garnet" comes from the Latin word "granatus" meaning seed-like; the appearance of the smaller crystals embedded in the mass of rock, resembling seeds.

Asiatic people used garnets as bullets in the belief that their glowing colour might cause them to inflict a more deadly wound. Their use as bullets has also been mentioned in accounts of Southwest Indian Wars in America. It has been used as an amulet or charm against accidents in travel and is sometimes regarded as a royal stone due to the preference the Persians have given it as the bearer of their sovereign's image.



The ruby-coloured garnets belong to the pyrope variety. Pyrope comes from the Greek word meaning fire-eyed. This variety and the almandine type which is deep crimson, violet or columbine red, are fashioned in the rounded form and are known as "carbuncles" from the Latin for a glowing coal. Garnets are all extremely tough and durable.

Garnets are not as expensive as many other gems. People today have but little interest in the garnet because they think of it as a rather muddy-red stone set in low carat gold jewelry. Others value it for its beauty in colour.

The External Trade Branch of the Dominion Bureau of Statistics shows in the year 1936 that imports of precious stones and imitations of the same, increased from Switzerland, Germany and the United Kingdom but decreased from the United States, Czechoslovakia, France and Japan.

No. 104. Wed. Jan. 12, 1938 -- Beef-Eaters.

Beef-eaters suggests those burly Yeomen of the Guard that add a touch of ancient splendour to official life in Old London. With their broad velvet bonnets, red costumes and white stockings, they make a picturesque sight in the peregrinations of Canadians when they cross to Europe.

The original duties of the Beef-eaters, a popular and quite unofficial name, was service at the king's table. The word is a corruption of the French beaufetier or buffetier, which means one who waits at the buffet or side-table, although it should be said that Skeat, the English etymological authority, maintains that its natural English meaning is the right one. We can let it go at that, for it can't be very far out anyway to us who regard the English as having no superiors in their discriminating knowledge of a good beefsteak. Every schoolboy has heard about the "Roast Beef of Old England". Londoners actually had a Beefsteak Club, founded when good Queen Anne was on the throne. The Prince of Wales was a member of it and so were such distinguished men as Garrick, Wilkes and Hogarth. Sheridan founded one in Dublin -- Ireland is by no means backward in supplying good beef.

Contrary to what seems to be a general belief in Canada we are not heavy consumers of meat -- comparatively speaking, at any rate. The largest consumers are the people of the Argentine, New Zealand and Australia. The per capita consumption is well over 200 pounds in each of these three countries. The Argentinians eat beef mainly but the people of New Zealand and Australia eat beef and mutton.

Canadians, Britishers and Americans are the heaviest meat eaters in the Northern Hemisphere. The Canadians and the people of the United Kingdom consume about the same quantities per capita and the Americans a little less. The Belgians, according to the latest statistics received here, eat only about half what the Canadians consume.

However, Canadians are not eating so much meat as they used to. The per capita consumption of beef, veal, pork, mutton and lamb in 1936 was 134 pounds, which was six pounds less than in 1934 and 15 pounds less than in 1932. Slightly more than half of the meat consumption was pork. It is the same in the United States, while in Europe the Germans also eat more pork than beef, and, indeed, eat more pork than Canadians or Americans. So do the Danes.

The great beef-eaters of Europe seem to be the British and French, but in the United Kingdom much mutton is consumed, whereas, neither in Germany nor France is

there any material amount of mutton disposed of. Canadians do not appear to relish mutton, which is strange. The average consumption is about six pounds in the course of a year. The same thing may be said of the Canadians regarding cheese. We are not as a people very fond of cheese and do not consume nearly so much of it as do the people of the European countries which gave our ancestors birth. Maybe it is because we are too well off and affect to despise what is sometimes spoken of as "the poor man's meat". When talking that way it is well to remember that many of the greatest athletes and many of the hardiest races of the world have been great consumers of cheese. It is a strengthening food, and comes from the cattle that make beef.

No. 105. Thurs. Jan. 13, 1938 - Meat for Early Settlers.

As can be readily understood, the cost and difficulty of bringing cattle to this country during the 17th century was very great. Many animals died during the long voyage, or were seriously injured in stormy weather. Accordingly it became extremely important to retain imported stock for breeding. An edict was issued prohibiting slaughter. The penalties were severe -- death by hanging to the principal, burning of the hand and loss of the ears to the accessory and 24 hours' whipping to the concealer.

Until an ox was unfit for hard work, or when an accident befell, the early settlers had no beef. It was not a hardship, for bear, moose and deer were plentiful. The thought obtrudes that when a pugilistic young fellow got a black eye from an aggressive opponent, he would be unable to cover his discoloured optic with a plaster of beefsteak, which is a favourite remedy for injuries of that sort. Professional pugilists nowadays usually puncture the lid and draw off the bruised blood, but the beefsteak is the traditional cure.

A little introspection at this moment won't hurt. In our self-complacency we sometimes derive amusement at the idea of the sacred cows of India. There are holy bulls buried in tombs in Egypt. One of the coffins has been robbed. The lid weighed 14 tons and the granite box 65 tons. Why the dead bull was stolen is probably because the inside of the carcass had been filled with precious stones.

We smile at that, don't we, in our smugness? Well along the highway between Toronto and Windsor, a life-size metal statue of a cow has been erected. The cow commemorated, was Springbank Snow Countess, but unlike the Golden Calf set up by the Children of Israel, she was honoured because of her contribution to humanity, a record in the life-time production of butter-fat. That cow trod the milky way 16 fruitful years and then departed for the Elysian fields.

All cows are not benefactors. You will remember that Mrs. O'Leary's cow was supposed to have upset a coal oil lantern in 1871 and started one of the great fires of history. A large part of Chicago was laid in ruins. A high wind and a prolonged drought assisted the conflagration. It drove one hundred thousand people into the shelterless prairies, took between 200 and 300 lives and destroyed 150 million dollars worth of property.

It should not be forgotten in thinking about beef, that, with the single exception of the bison in North America all oxen are native of the Eastern Hemisphere, where they did not appear until comparatively late in geological series. All the members of the genus Ox, which includes the buffalo, bison and yak, as well as the various domesticated breeds of cattle, have hollow horns, as distinguished from the deer, which have solid antlers of bone, shed and renewed yearly.



No. 106. Fri. Jan. 14, 1938 -- Beef Cattle.

A fine example of early enterprise that did much to build up successfully the live stock and beef industry in Canada is to be found in the story of Rowland Wingfield. He was a young English immigrant who arrived at Guelph more than one hundred years ago. He purchased a farm in the Township of Puslinch, cleared a few acres, built a log shanty and returned to England to buy stock. He came back with some of the best Shorthorns that could be bought, splendid representatives of the white, red and roan. He brought them to Montreal, drove them on foot to Lachine, took them by boat up the Ottawa River to Bytown, passed through the Rideau Canal to Kingston, shipped them up Lake Ontario to Hamilton and then walked them thirty miles to Puslinch. What a journey that was! What an expense!

There were two bulls and six heifers in the lot and their descendants are scattered far and wide over the continent of America. That herd established Guelph as a stock centre in Canada. The enterprising young Englishman made the beginning.

Amongst the beef breeds, as apart from dairy cattle, and talking only of the pure-bred, the Shorthorns are the most numerous. In fact they come second only amongst all cattle to the Holsteins which latter are dairy cattle. Next to the Shorthorns amongst all cattle, but coming close behind them, are the Ayrshires. The others are in the following order: Jerseys, Herefords, Aberdeen Angus, French-Canadian, Guernseys, Red-Polled, Brown Swiss, Galloways, Devonshires and half-wild Highland cattle.

There are thus 14 or more varieties of pure-bred cattle in Canada, which goes to show the wide range that has entered into the building up of the great grade herds of Canadian farms. You will observe that the Devonshire comes far down the list in number. In fact there are only 50 or 60 pure bred Devonshires in Canada. These graceful animals have largely modified the Argentine and Australian herds, but have had little or no influence in this Dominion.

Development of land in the western part of the Prairies began with cattle and sheep ranches. Cattle have held the more prominent place for Canada has never been prominent as a sheep country. Late in the 70's the Dominion Government introduced a herd of one thousand breeding cattle for the purpose of establishing a beef supply for the Indian population. The buffalo had almost entirely disappeared. The venture was sufficiently successful to encourage private enterprise. With the arrival of the railroad in the early 80's the progress was swift.

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No. 107. Sat. Jan. 15, 1938 -- The Ox on the Farm.

We used to be fond of rolling round our tongues the saying that the horse was man's best friend and to the descriptive writer the phrase was a godsend until the unromantic, however useful, motor car came along. But even that old luscious morsel in expression could be disputed with a great show of argument. Here is something to think about:

The cow and the ox were the first animals used on the Canadian backwoods farm. The cow supplied milk, butter and cheese for the household, and the yoke of oxen, or steers, did the heavy labour, the logging of the land and the work of the ever widening acres and arpents as the hard working farmers made their yearly inroads into the primeval forest.

These cattle were comparatively easy to keep. They fed on the forest plants in summer and on meadow hay and browse in the winter. Browse was composed of the small twigs of the forest trees felled by the settler in clearing the land. That causes one to wonder just what was the flavour of the milk, for we are well aware that the reason why the Canadian is not fond of rabbit as a meat food is because of the woodsy flavour of the flesh.

For years the Canadian farmer had no other stock save cattle, for horses were not adapted for work among the stumps and required better winter food than was available. The wolves took the wandering sheep and the bears had a particular liking for pigs that ambitious farmers brought in from "The Front" as the older settlements were called. That is quite a home-brew Canadian expression. Most of the country towns still have a Front Street, although officially it may have another name. Across the Atlantic, the High Street is a name in vogue.

Cattle, therefore, were the first helpers on the farm and they still lead in the volume and value of their products. The first record of them in Canada was in 1610 when Champlain mentions having cut hay for the cattle. The earliest importations were from Normandy and Brittany whence many of the settlers came, and these formed the basis of the livestock industry of Quebec. The livestock of the Maritime Provinces came partly from France and partly from New England. Nova Scotia had the first French stock; New Brunswick stock was almost wholly from New England, while Prince Edward Island had some directly from Great Britain.

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No. 108. Sun. Jan. 16, 1938 -- Cattle outside in Winter.

This month we have said a good deal about Canadian cattle, especially beef cattle. A word or two more might be added, however, that will surprise many Easterners.

In the beginning the cattle were herded on the open prairie but in the middle of the 80's many of the larger ranchers started to fence their land. Better breeding practices thus became possible and these leading ranchers used pure-bred bulls of the best beef breeds almost exclusively. Excellent "store cattle" for shipping abroad were raised.

It is amazing that, even with the extreme cold of the Canadian prairies in the winter season, the stock on both farms and ranches are frequently kept in the open air during the entire year and, with proper feed, can thrive and put on fat in the dead of winter. In some parts, particularly in Alberta, it is frequently possible for the animals to find forage all through the winter.

The high standard of Canadian cattle is exemplified by the fact that last November a shipment of 200 head went to England to a Chester farm. This is the largest single export shipment ever bought by an individual. Baron von Trutschler, the purchaser, had lost his entire herd of 240 cattle through Foot and Mouth disease.

Last year Canada exported 310,000 beef cattle, most of them going to the United States, but ten thousand crossed the broad Atlantic to the Old Country. Canada is the second contributor of beef cattle to the United Kingdom, coming behind only the Irish Free State.

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No. 109. Mon. Jan. 17, 1938 -- The Canadian Home.

"The six room unit is more common in Canada than homes of any other size, but it is not typical in all parts of the country." That statement is contained in a report on the housing accommodation of the Canadian people issued by the Bureau and based upon data secured at the last census. A reference was made to it in the December issue of "A Fact a Day" but perhaps something more might be said.

There is a world of meaning in the statement, and it should be tucked away in the back of our minds as we endeavour to discover what bearing the Canadian home has upon our habit of thought and conceptions of well-being or, on the other hand, whether it is our mental outlook, our living and climatic conditions, our notions of family life, that sway us when we build our homes.

First of all there is the word itself. We sometimes use the words, abode, dwelling and habitation to denote the place where a person lives. Abode and habitation belong to the poetic or elevated style of speech. Even the word dwelling is not used in our every-day conversation, but when a man talks of "my house" or "my home", particularly "my home", he is portraying a scene of domestic love, and happy and cherished family life. Sometimes, when people get a little bit uppity, they talk of their residence.

Have you ever glanced at the faces of an audience in a concert hall, as the newspaper reporter does, when a great singer is rendering Home Sweet Home? Emotion is everywhere evident.

Madame Patti once sang "Home Sweet Home" as an encore at an Edinburgh concert. The Scottish capital was described by the late Rev. Dr. John MacNeil, of Toronto, as "east-windy, west-endy Edinburgh", yet tears were streaming down the cheeks of stolid men, much given to self-restraint. The great lady herself was almost overcome; no doubt, her heart was full of love for the might-have-been, for much of her earlier life was unhappy. The incomparable Jenny Lind, "the Swedish Nightingale", often sang "Home Sweet Home", the rare music of which was composed by Sir Henry Bishop.

When Jessie MacLachlan sang "The Auld Hoose" in the Canadian capital -- and capital cities are said to be skilled in restraining their feelings -- there was a long, dead quiet as she concluded the last strains. The moments of silence before the applause broke were a tribute to the singer who could so stir fond memories.

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No. 110. Tues. Jan. 18, 1938 -- Two Kinds of Homes.

We are familiar with the saying: "The humble cabin was dear to him as the home of his childhood". The poet has sung:

Home is where affection calls -  
Where its shrine the heart has builded.

Thus the word comes to signify any place of rest and peace, and especially heaven, as the soul's peaceful and eternal dwelling place.

In talking about home we are not thinking so much about our native land but rather of our domicile. An old writer has said that the two most patriotic races on earth are the Swiss of the Tyrol and the Scottish Highlanders.

We have no means statistically of showing whether that statement is correct or not, but there are evidences everywhere that the "eternal hills" have an extraordinary appeal that engenders deep affection.

When Papineau decided to build the mansion that was to be his home, he chose one of the loveliest sites in all North America, where the Laurentian Hills dip down to the lordly Ottawa. Stories are yet told of his evening stroll around that beautiful domain beside Montebello, and how in an ecstasy of love he would doff his hat and outstretch his arms to the wonderful hills.

Nor, however, are we thinking about mansions, but of the average Canadian home. More in our mind is the cottage. There are more log cabins than manor houses in this Dominion.

Let us say broadly that there are two kinds of homes in Canada, the country house and the city dwelling. Cities change so quickly that in a very few years, the place where a man was born may disappear, to be replaced by a business structure or an apartment. But in the country the changes are few and far between. City people take their children to visit the homes in which their parents were born and which their pioneer ancestors built. But a vast number of their children's children will have to point to a city hospital as the place where they first saw the light. The glamour of the birthplace is disappearing fast under our more regimented civilization.

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No. 111. Wed. Jan. 19, 1938 -- The City Home.

We may deal with the city homes first, in order to get rid of one really uncomfortable feature of the Canadian urban districts. There are the slums or near-slums of the poor and the avenues of the affluent. In between are the average homes, which contain six or seven rooms. In Quebec, four and five room homes predominate, in Ontario six, although Ottawa is exceptional with seven. Prairie urban areas contain proportionately more small homes and a lower percentage of large homes than is found in Eastern Canada. The four room home predominates in British Columbia.

The smaller Prairie dwellings doubtless are associated with the relatively short time the western provinces have been settled. This view is supported by the fact that Manitoba, the oldest of the three, has a lower percentage of small homes than Saskatchewan and Alberta. Accessibility and cost of building materials is another factor.

The power and progress of a country are based fundamentally upon the family and family life. Wise statesmen pay considerable attention to wages, for upon adequate remuneration depend proper living conditions. Inadequately housed and undernourished, a population speedily degrades. That is why Canadian statesmen of today are so much exercised over the question of relief for the unemployed. Social welfare looms large in statecraft.

On the whole Canadian cities are fairly well designed to meet the needs of their citizens. Normally the streets are wide and little gardens are an adjunct to the average home. There is plenty of good air. But in many cities there are slum properties which are out of the main routes of travel and are rarely seen by the population in general.

To William Penn we in America owe a great deal. When Charles the Second ruled England, Penn was sent to administer that area which is now called Pennsylvania. He had travelled widely, had seen the effects of the Great Plague of London and the



Great Fire; he was young, active and far-seeing. When he established Philadelphia he gave it a plan of wide streets and squares, which has influenced our continental city planning to this day.

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No. 112. Thurs. Jan. 20, 1938 -- The Rural Homes.

What about our rural homes, the houses in the country, far from the madding crowd? Country homes in the Maritime Provinces are larger on the average than in any other part of Canada. The typical dwelling has eight rooms which seems to suggest that they were built when the average families were large. There are a great many of these comparatively large homes in Quebec also. Incidentally, the small family and the married couple with no children appear to favour the apartment house style of living in the cities, which accounts in some degree for the number of small-roomed houses.

There is a definite figure to demonstrate this. During the ten years before the last census the number of households in Canada increased by about 370,000 but the number of dwellings increased by only 220,000. In many dwellings there were more than one household. For example, a young couple without children might rent two rooms in a house and there would then be two households in the one dwelling.

The characteristic rural home in Ontario is the same as in the urban districts, namely six rooms, but in the great open spaces of the Prairie Provinces, there is quite a difference. Over 60 per cent of Prairie rural homes have four rooms or fewer, while in Ontario the number of such homes is less than 23 per cent. In Alberta and Saskatchewan there are more country households occupying two rooms than in any other group.

Not long ago a gentleman arrived from the West to fill an important position in the Capital. He had gone West in his youth and had homesteaded. His first home was built of turf, that strong fibrous divot that can be cut from the lid of the Prairie. He spoke lovingly of that two-roomed sod shack where he and his wife spent their early wedded years, and of the heartbreak when they left it for the more commodious residence that a few years of prosperity had made possible. It was a long while before they looked upon their new dwelling as home.

Not far from Ottawa an aged couple are spending the evening of their days in a little stone house that was built more than a century ago and in which the husband was born. They were prosperous farmers and when their family grew they decided to build a handsome brick residence. The eldest son now lives in the new red brick while the old folk have gone back to the old house. True, they have some of the modern inventions to keep them up-to-date, such as electric lighting, an electric pump, as well as a little car, but they are home again.

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No. 113. Fri. Jan. 21, 1938 -- Most Houses are of Wood.

British Columbia has a distinction all its own. Rural and urban home distributions are more nearly similar than in any other province. The four-room dwelling predominates in both areas, but households occupying fewer than four rooms are more numerous than those with more than that number. The wealth of lumber probably is the cause of the rural homes averaging as many rooms as do the urban dwellings.

One thing is clear --- that city homes in Canada are more nearly alike in size than is the case in the country. There is greater elasticity in the number of rooms in rural homes generally than in urban centres. They range from the one-room shack to the mansion. One of these fine old homes, out in the country near Toronto, is 150 years old, built of white pine. This Markham home is still occupied by descendants of the builder and is visited by many people who are interested in such a remarkable relic of the early days in Ontario.

The interior lay-out of this interesting old house indicates the living conditions of the Ontario pioneers. On the ground floor there are a large dining or living room and two bedrooms -- one for the parents and one for the minister, who presumably lived with his flock, changing his place of abode from time to time. The kitchen was a lean-to. The first floor was one large room occupied by all the girls in the family and the top flat, also a single room, was for all the boys. This particular house was the home of no fewer than 16 children -- all the sons stood six feet and over.

Very many of the wonderful old homes in Canada were built of wood, especially of white pine, and it is a fact that, even to-day, most Canadian homes are of wood. At the census of 1921 sixty-six per cent of the homes were of frame construction, while at the last census the proportion had increased to seventy per cent. A frame house in the country well designed, say of that always charming gable construction, and nicely painted, is a beautiful sight, particularly when flowers and shrubs and trees surround it. There is the "home sweet home" of the Canadian countryside.

All through the older parts of Canada we find these Old Houses. Many of them have fallen into disrepair and are used as storehouses for discarded equipment. Many of the old stone and log structures have been covered with clapboard or stucco so as not to put to shame the new brick houses that shelter the second and third generations. But the Old Houses stand quietly in the background, monuments to the hardy pioneers who first cleared the land and made themselves homes in the wilderness.

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#### No. 114. Sat. Jan. 22, 1938 -- The Slums.

The high cost of real estate in a wide and thinly populated country such as Canada, the speculation and the over-rapid extension of costly civic services have been main causes of congestion. It became inevitable that people with small incomes and large families had to crowd themselves together to lessen the cost of living. We have built up slum conditions as a result. We have crude, rude shacks in which there is neither privacy, delicacy, health nor cleanliness. Insufficiently fed and clothed, children grow up often physically and mentally handicapped. Boys and girls raised in these families intermarry at an early age and perpetuate the problem. Physical defects, although frequent, are not as prevalent nor evident as the general mental degeneracy.

Movements are afoot to improve these conditions and it is notable that the citizens who are taking the deepest interest in the problem include some of the outstanding figures in the Dominion, men and women of noble minds who have devoted much of their time and thought to this cause.

The problem is of national importance. Every child born has an effect or an influence, however minute, upon the national structure.

How important it is may be judged from many angles, but one will suffice. It is notable, especially since democracy ruled, that a very large proportion of the great



minds that have risen to high estate and control of the destinies of their fellowmen, has been drawn from the ranks of those who can boast no purple in their blood. By improper housing and living conditions, therefore, it may reasonably be said that the nation may be losing potential leaders, and the underworld having its ranks recruited.

No. 115. Sun. Jan. 23, 1938 -- Occupational Trends -- 1.

Many years ago there was a coachman in Ottawa who was known to a great many people from Coast to Coast. A liveryman he was called in local parlance. He was a good deal of a character, in his way, and his special flair was politics. He knew every political figure, and he had a more or less intimate acquaintance with everybody who was anybody.

He had what we call appeal. There was that something in him which gave him distinction. It was mainly his love of horses, transmitted to him by centuries of ancestors who had galloped across the green turf of Kildare. It was a sight to see him drive his span of spirited hackneys up to Parliament Hill and deposit on the kerb a Minister of the Crown who had been enjoined to attend a momentous gathering in the Privy Council Chamber.

He knew instinctively whether a sick horse had colic or a devilish toothache, and he babied it till the pain was gone.

One fine morning he drove to Parliament Hill but he was seated at the wheel of a motor car instead of handling the reins of his beloved horses and it made a good newspaper story. That same evening he taxied a cabinet minister to the old Russell House, now demolished, and the minister expressed his deep regret at the change. The man from Kildare was visibly affected.

This simple little illustration is given just to show what is meant by Occupational Trends. There has been a vast change since the twentieth century opened wide its portals. We describe it very well when we say that we have entered the Machine Age.

No. 116. Mon. Jan. 24, 1938 -- Occupational Trends -- 2.

Read carefully this more or less technical preface to a talk on Occupational Trends:

At any given time the occupations of a people reflect the stage of economic development through which a country is passing. Basically, of course, this development itself depends upon the nature of the country's physical resources, the progress of invention and industrial technique. The changes that are constantly taking place in these basic conditions will eventually be marked in one way or another by modifications in the occupational structure.

That is full of meaning. Boiled down a bit, it means that the changes in industrial production have an immediate effect upon employment.

To get down to brass tacks, the modern power shovel of  $1\frac{1}{4}$  cubic yards capacity will dig up and dump 93 cubic yards per hour, which is the equivalent of the labour of 62 men working one hour with hand shovels.

The average man in a modern iron and steel plant is producing from  $1\frac{1}{2}$  to 8 times as much as he did 25 years ago.

The introduction of the movie tone picture theatres has displaced musicians entirely in small theatres and has resulted in about 50 per cent loss of employment among theatrical musicians in general. Every small theatre had its pianist or organist and the larger theatres had an orchestra.

There are not so many pianos in Canadian homes, with the result that there is less opportunity for the music teacher.

It takes about one-fifth the number of workers to turn out an automobile than were required years ago. A new special machine for the manufacture of pressed steel frames, operated by one man, can produce 3,600 in 10 hours, an output which by hand methods would require a force of 175.

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No. 117. Tues. Jan. 25, 1938 -- Occupational Trends -- 3.

Up to and including the last census, the minimum age at which a child might be counted as having a gainful occupation was ten years. However, in recent years, children are staying longer at school than they were and at the Prairie Census of 1936 the minimum working age of 14 was set. It was found at the 1931 Census there were few children under 16 employed outside agriculture, 75 per cent of the boys between 14 and 15 at work being in farming occupations.

A gainful occupation is one by which the person pursuing it earns money or money equivalent or in which he assists in the production of marketable goods. A farmer's son not attending school, who is fully employed on the family farm, is recorded in the Canadian Census as gainfully occupied though he may be working in a "no pay" capacity.

The most significant occupational change in Canada generally during the past quarter of a century or so has been a decline in the relative importance of agricultural pursuits and a rapid growth in transport, commercial, service and clerical occupations. In such primary pursuits as fishing, mining, logging and particularly in manufacturing occupations, the growth, though substantial, has hardly kept pace with the general increase in the working population.

This reveals the general direction of trend of occupations in the Dominion, but it is not easy to measure the actual extent of these changes. It is difficult to create comparable statistics. Constantly changing methods of production, the substitution of machinery for hand labour, the creation of new products, all tend to create occupational differences even where the main tendencies remain the same. There are occupations called by the same name as thirty or forty years ago but the nature of processes performed and the special duties associated with them show little resemblance.

At the opening of the century about 45 per cent of all gainfully employed males in Canada were engaged in agriculture but at the last census only one-third of the total males in the Dominion were engaged in that vocation. The population generally has grown, of course, and there are more men engaged in agriculture than there were 35 or 40 years ago, actually 55 per cent more, but the number of men engaged in all occupations has risen 100 per cent in the same period.

Agriculture very clearly reveals the effect of the Machine Age upon employment. Although the number of men employed in agriculture has risen 55 per cent compared



with the beginning of the century, the area of occupied farm land has increased 157 per cent. The total value of farm products is three times greater, which is a large increase even after allowing for changes in price levels.

It is worth noting that the population, as a whole, living in rural parts of Canada has fallen from 62 to 46 per cent. To put it in another way, while the rural population has increased 44 per cent since 1900 the urban population has grown at a much more rapid rate, or by 178 per cent.

No. 118. Wed. Jan. 26, 1938 -- Occupational Trends -- 4.

There has been a definitely slower growth in the number of people employed in manufacturing or mechanical occupations than in occupations generally. This is true although there have been large increases in the manufacture of rubber and metal working and paper-making occupations. In fact, the proportionate increase in the gainfully occupied population of the whole country has doubled that of the manufacturing group. At the same time there has been a great expansion in the volume of production of manufactured goods. While the number of employees in manufacturing has not quite doubled since the beginning of the century, the net value of production has increased six times. Improvements in the processes of production have contributed largely to this result.

Statistics show that the aggregate number of workers engaged in what we call primary or secondary production today represents a relatively smaller proportion of the total working population than at the beginning of the century.

On the other hand, the numbers employed in the transportation and sale of goods have increased at a rate approximately double that of the employed population as a whole. The gainfully employed increased by 120 per cent but the number of those in transportation services increased by 266 per cent and in commercial occupations 233 per cent.

Railway transport occupations showed marked growth until 1921 but after that there has been some decline. On the other hand, road transport occupations have increased sharply since 1921. That is one of the very noticeable trends in recent years.

Telephone operators have increased from one thousand to fifteen thousand, a large proportion of the increase taking place in the first decade of the century. In that same conspicuous decade, trade had its greatest expansion, the number of employed almost doubling, while the total of gainfully occupied increased 50 per cent.

Occupations common to finance and insurance have shown remarkable increases; there are six times as many insurance agents as there were.

The service group of occupations has shown a somewhat more rapid rate of growth than the average rate for all occupations, but the number engaged in the professions has increased faster relatively than in the personal services. Valets and footmen are not so much in evidence.

Some professions, such as engineers, especially electrical and mechanical engineers and dentists, have increased much more rapidly than the older professions of medicine, law, and particularly, the church. Why that should be so, is just an exemplification of the higher standard of comfort -- apart from religion. That requires an explanation all by itself.

No. 119. Thurs. Jan. 27, 1938 -- Occupational Trends -- 5.

We prepare our bread with an electric toaster instead of browning it in front of a great open fire or over a box stove. We visit the dentist long before the vile toothache begins its beating. We sit proudly in our car and touch a button to start up instead of curry-combing a nag the night before and harnessing him up the next morning with fingers freezing. In fact we have begun to live like lords although we forget about that and grumble just the same. We rarely realize the blessings of our state and seldom think of thanking Providence for the fine food we are about to devour.

While professional engineers are five times as numerous as they were when the 1900's began, there are not quite half as many more clergymen. Apparently the need for attention to our souls is not regarded as so pressing as our requirements in the shape of mechanical devices. We don't attend church so regularly as did our forbears and are thankful that the Minister doesn't call the roll at morning or evening worship.

Then we have the personal service occupations. Domestic servants in the home have not shown the spectacular growth in number as recorded for restaurant keepers, waitresses, janitors, hairdressers and other personal services performed outside the home. This indicates the change in our mode of life consequent upon the growth of large cities and the trend towards apartment dwelling.

Complaints are heard frequently that it is difficult to get good maids, that young girls from good families will not endure domestic service, the long hours, the hard work, the poor pay and the servile state with its badge of servitude. Happy the young lady who enters the home of a kind and understanding lady -- to wit, Robert Louis Stevenson's nurse -- for in such a case domestic service is elevated as it should be.

Clerical occupations have absorbed rapidly growing numbers of young people, especially girls. There are 840 per cent more than at the turn of the century. There are more lady stenographers and typists now than school ma'ams. Indeed, with the exception of domestic servants, there are today more stenographers and typists than in any other occupation suitable for women. Teaching school, however, is still a favourite occupation.

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No. 120. Fri. Jan. 28, 1938 -- Occupational Trends -- 6.

Inevitably the question will be asked whether the unskilled labourer in industry represents a larger element in the Canadian working force today than formerly. It is a difficult question to answer. In the manufacturing industries it is not easy to distinguish between the so-called semi-skilled operator and the unskilled labourer. In the first decade of the century labourers increased at a faster rate than for most occupations; in the second decade they appear to have declined relatively, while in the third decade they resumed the more rapid rate of increase of the first decade.

Changes in occupations have been accompanied by changes in the sex composition of the working population. An increasing portion of those who work are women and girls. At the beginning of the century there were 154 females to every one thousand male workers; today there are over two hundred, or about one female to every five males in employment.



Though females have been entering gainful occupations at a relatively faster rate than males, the rapid expansion in female employment has been confined largely to the clerical, professional and commercial occupations. On the other hand, the number of women in manufacturing occupations has not shown as rapid a growth. For example, the decline in the number of dressmakers, milliners and tailoresses in the last twenty years has not been fully counterbalanced by the increased number of women in clothing factories.

The agriculturist still very largely pursues his occupation independently on the family farm, but the shoemaker, the tailor, the cabinet maker and a host of other skilled workers, who did their tasks at home, have now been largely supplanted by the factory worker.

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No. 121. Sat. Jan. 29, 1938 -- The Pea-viner.

The Canadian people use much canned peas and corn. They are such a favourite dish that it is worth while digging up from our memory the fact that two young Canadians made the first beginnings which made the pea canning industry a success.

During the last century John Chisholm and his brother, two young farmers who lived near Oakville, Ontario, had been working on a machine for shelling peas. It was a clumsy affair and had not been a success. The delicate peas were bruised and broken in the process.

The two young men had decided to give up their efforts and John, before leaving the barn, picked up disgustedly some of the pea pods. With a butter paddle in his hand he hit them much as you hit a ping-pong ball, or a tennis ball.

His brother examined the peas scattered round the floor of the barn. Every pod was empty and not a pea was bruised. That gave them the required inspiration. Their elaborate machinery had been rough with the peas. What they required was a light sharp impact such as Chisholm had given the pod with the butter paddle.

The two Chisholms went to work again on their invention, and they were joined by another inventor, Robert Scott, who had been working on a machine for picking the peas off the vines. Within a few months these three clever young men had built a wonderful machine, the pea-viner, that picked the peas off the vines, shelled and graded them, all in one operation. It is an attractive story of Canadian enterprise. Chisholm also developed a corn husker from a clothes wringer through which he ran the corn. These inventions paved the way for the canning of peas and corn on a large scale.

The development of the canned foods industry has effected great changes in the relation of foods to seasons. Fruits and vegetables of many kinds are to be had at all times of the year, not always with all the flavour of the freshly gathered products, but with much of their original freshness and flavour.

A striking illustration is the canning of tomatoes. About 90 million pounds have been canned in one year. Then we have tomato juice running up to over twenty million pounds and millions more of canned paste, puree and pulp. More tomato goes into cans in Canada than any other vegetable or fruit. Canned peas come next in quantity.

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No. 122. Sun. Jan. 30, 1938 -- The Tin Can.

Look at the kitchen cupboard. The shelves exhibit a pleasing array of coloured and decorated cans, all of them containing something <sup>that</sup> plays a part in the routine of the household. The containers are neat and well labelled. Indeed, these containers are quite often so neatly and conveniently made that, for everyday use, they are quite good enough for the table. We could easily do away with the old fashioned pepper box, for example, because the corner grocer will hand you a very nice-looking container with the pepper in it all ready to shake.

A Parisian named Appert was the first man to can food. He carried out his experiments with glass jars, which he sealed and immersed in boiling water. The French Government had offered a prize of 12,000 francs for the discovery of a process of preserving food for the soldiers and sailors of France. Napoleon was so grateful that he awarded the prize to Appert in person.

After that an Englishman, Peter Durand, invented the tin can and it took the place largely of the glass jar, so easily broken.

Hark back to the kitchen cupboard with its splendid variety of canned goods -- from coffee to spinach. There may be everything you require for breakfast, luncheon or dinner and a snack in between. Compare it with the cupboard typical of the days before the present century came in. Almost the only canned food on the shelf was salmon with its gaudy paper wrapper glued to the tin. Now and again when the picnic season was due there might be condensed milk, in which the Swiss were doing a thriving trade.

These were the days when the ladies of the household were very busy with purely domestic concerns, and cupboards were huge affairs. Much food had to be prepared for hungry mortals. Coffee had to be roasted and ground, salt cellars and pepper boxes had to be filled, mustard to be moistened. Potatoes, turnips, carrots and other accompaniments of the meat portion at dinner had to be peeled or scraped. The household implements were solid and heavy, the forks and knives had to be polished after every meal, and the work went on from early morning until late in the evening.

Nowadays, there is actually no need to do any one of these things. If the housewife is so minded, she need not do much more preparation for a meal during the day than toast a slice of bread, fry a rasher of bacon, boil an egg or brew a pot of tea. Housekeeping has been simplified with a vengeance.

The angle that occurs to one as most noticeable is the arrival of the tin can as a great labour-saving device. It has eliminated a great deal of the drudgery of the kitchen. Countless hours of toil have been saved by the tin can.

No. 123. Mon. Jan. 31 -- Most Important Branch of Canning.

The most important branch of the canning industry is the canning of fruits and vegetables, which is carried on most extensively in Ontario and Quebec, where the climatic conditions for the growing of these crops are favourable. The canning season begins in June and continues throughout the summer and autumn until October, being at its height in July, August and September. That makes employment vary. Fewer than three thousand persons are employed in March, yet in the busy months there are seventeen or eighteen thousand.

Besides the fruits with which we are all familiar, we have loganberries and apricots in British Columbia.



Canned fruits and vegetables in Canada have a money value greater than all other canned foods combined. Canned fish rates next. Salmon leads the way amongst the varieties of fish and is more than twice all others combined. Practically all of the canned salmon comes from British Columbia, with a small quantity from Quebec and other provinces.

Chicken can now be bought in a can, fitted to its nicely browned curves, thus saving the blushing bride from the jokes about amateur cooking. Even the prospect of raising young children has been made simpler by prepared foods. This item is gaining rapidly in popularity as the figures for the last two years available show a doubled production of prepared food for infants.

In fact the production of concentrated milk products was double that of canned soups. The total production value of the ~~canned~~ food industry in 1935 amounted to 45 million dollars, an increase of nearly 3 million dollars over the year before.

Tomato juice, which is more frequently found in the bars than in the dining-rooms of hotels in England is another product that is gaining in popularity. The flavour of the Canadian tomato is well liked and the extra juice in the tins of canned tomatoes is very popular in the North of England, especially among the miners.

It is impossible to say exactly how many tin cans are made in Canada in a year, but a good guess might be 60 million of all kinds. In the United States 600 million is said to be the number.

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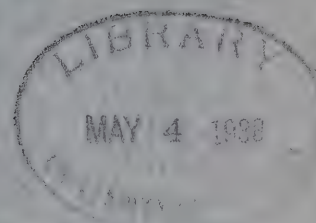
**A FACT A DAY ABOUT CANADA**

FROM THE

**DOMINION BUREAU OF STATISTICS**

**FEBRUARY 1938**

**FOURTH SERIES**



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Published by Authority of the HON. W.D. EULER, M.P.,  
Minister of Trade and Commerce.

Price 25 cents per annum



## Contents

- |                                     |   |
|-------------------------------------|---|
| 124. Mutual Friendship.             | 138. Smoking Fish at Home.                |
| 125. Microscopic Babies.            | 139. See the Snowshoers.                  |
| 126. The Zipper.                    | 140. Early Canadian Industry 1.           |
| 127. Building Construction in 1936. | 141. Early Canadian Industry 2.           |
| 128. Sockeye for Nanaimo River.     | 142. Early Canadian Industry 3.           |
| 129. Apples to Harden Steel.        | 143. Rapid Development.                   |
| 130. Substitutes 1.                 | 144. Amethysts for February.              |
| 131. Substitutes 2.                 | 145. A Canadian's Expectation of Life 1.  |
| 132. Substitutes 3.                 | 146. A Canadian's Expectation of Life 2.  |
| 133. Substitutes 4.                 | 147. A Canadian's Expectation of Life 3.  |
| 134. Recovered Greases.             | 148. A Canadian's Expectation of Life 4.  |
| 135. Canada's First Movies.         | 149. A Canadian's Expectation of Life 5.  |
| 136. The Order of the Garter.       | 150. Bringing Things to Canada from Afar. |
| 137. St. Valentine's Day.           | 151. Trade Has Queer Angles.              |

James Muir,

Editor.

## A Fact a Day about Canada

from the

### Dominion Bureau of Statistics

No. 124. Tues. Feb. 1, 1938 --- Mutual Friendship

Much is said these days about friendly relations between various countries. Just as the harmony in a community depends upon the neighbours so does the peace of the world depend upon the attitudes of countries towards one another. We rejoice in the international friendship existing between the United States and Canada. Here is a little story to show how this relationship is maintained.

On the international boundary between New Brunswick, Canada and Maine, U.S.A., there are four towns, St. Stephen and Milltown in Canada and Calais and another Milltown in the United States. Co-operation and the deepest friendship mark all their activities. For instance, the water they all use comes from a common spring, a Canadian plant supplies the electric power and the United States supplies gas.

The hospital at St. Stephen serves the other three towns. Many of the American children are born on the Canadian side. If a lady of Calais wants her son to be an American citizen she must say so when she goes to the hospital in St. Stephen. If she neglects to do so, then her little son will automatically become a Canadian citizen.

We are also told that the firemen enter into friendly competition in being first to extinguish fires, contests which have saved many thousands of dollars over the past few years. Golf clubs and women's clubs and so on are international. On the Canadian national holidays the flags fly in the American towns and vice versa.

Such neighbourly activities as these linked with the tourist traffic between the two countries are valuable in coming to a mutual understanding. This, of course, cannot be estimated in dollars and cents. But some idea of the travelling back and forth can be gained by the fact that United States tourists spent \$159,000,000 in Canada during 1936 and Canadians spent about \$44,000,000, according to the report on the tourist trade to the Dominion Bureau of Statistics.

No. 125. Wed. Feb. 2, 1938 --- Microscopic Babies

Great oaks from little acorns grow, and clams worth a couple of hundred thousand dollars a year to Canada from tiny creatures which at two weeks old are only about one-twentieth of an inch in size. Nor are clams as long a time as oaks in growing. In two or three years the microscopic new-hatched clam has reached marketable size.

The Fisheries Department goes on to say that the Canadian production runs to more than 70,000 barrels a year. All five of the Dominion's sea fisheries provinces have productive clam-beds, New Brunswick and British Columbia are the biggest producers.

Clams go upon the market both fresh and canned. Many of the fresh clams go to the United States. The "little-necks" of New-York restaurants, a delicacy eaten raw, are young clams of the "quahaug" family and are not larger than half-dollar pieces.



The clams to be canned are opened by steaming them slightly or passing them through hot water. The meat is extracted, dipped in cold water to prevent toughening, and thoroughly cleansed of grit. Finally it is packed in cans, sealed and cooked at 240 degrees Fahrenheit for a certain length of time. This is the usual way of canning clams on the Atlantic Coast, but in British Columbia canneries the clams are cooked in their shells and then put in the cans.

The Fisheries Branch of the Dominion Bureau of Statistics reports that 72,000 barrels of clams were taken from Canadian waters in 1936. About 42,000 barrels were marketed fresh, the rest being canned or made into chowder.

No. 126. Thurs. Feb. 3, 1938 -- The Zipper

The zipper typifies our modern craze for speed, one quick pull and there the purse or dress is securely fastened. Most of us consider this time-saver a very recent invention but on the contrary, it was conceived nearly fifty years ago.

The story of the zipper goes back to the time of when in the 1890's a certain man named Judson became weary of lacing his boots. An idea to avoid this monotonous business resulted in a fastening that would close the boot in a quicker way.

Three years later a friend became interested but it was 25 years later before the invention came to the public's attention, at which time the navy found many uses for it. Then followed an improvement which enabled the zipper to be stopped or locked at any point along its length. There it would stay without slipping back to the bottom. Then the problem came where an article had to be opened from top to bottom. This was overcome by having the fastener open at the bottom. Now a wind-breaker or sweater doesn't have to be pulled over the head, and, as we all know, this very convenient fastener is used in countless ways.

Canada's production of zippers increased from \$461,000 in 1935 to \$645,000 in 1936. The imports for the same period nearly doubled.

No. 127. Fri. Feb. 4, 1938 -- Building Construction in 1936

It is exceedingly encouraging to see that the total value of the construction work performed in 1936 was an increase of \$42,000,000 over the previous year. An upturn in building and construction is invariably followed by business and industrial expansion. Directly or indirectly construction affects the greater number of Canadian industries and private or residential construction is the most important force in the well-being of a community.

Building is only one phase of the construction industry but it contributed \$22,000,000 to the total value of 1936. Other phases are engineering construction which deals with paving streets, care of sewers and drains, wrecking and demolition, etc.; care of harbours, canals and waterways; trade construction such as plastering, electrical work, air-conditioning, excavating, etc. New construction amounted to \$17,000,000. Factories and warehouses accounted for the greatest sums, government and municipal buildings, though not as many in number as the year before, followed in value. New construction of mine buildings showed great activity.

Other remarkable spurts in building were shown in new construction of theatres, a jump from \$348,000 to \$1,636,000; stores, \$909,000 to \$2,857,000; hotels, clubs

and restaurants from \$440,000 to \$1,241,000. Farm buildings showed little increase while service stations showed a decrease. New construction of single and double dwelling houses was less in 1936 than in 1935 but duplexes and apartment houses showed an increase.

Alterations, maintenance and repairs to buildings showed an increase over the year before, factories and warehouses costing the most, followed by single dwellings and then stores.

This information is taken from a report on the construction industry from the Construction Statistics Branch of the Dominion Bureau of Statistics.

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No. 128. Sat. Feb. 5, 1938 -- Sockeye for Nanaimo River

Back in 1935, one million dollars went into circulation as a result of the Sockeye salmon fishing in one British Columbia district. The catch was sufficient to produce about 166,000 cases of canned fish -- forty-eight one-pound cans to the case.

Sockeye are the most valuable Pacific salmon and are known far and wide. Practically all of Canada's output of canned salmon is packed in British Columbia, one of the world's chief success of this product, although there is a small production in the Dominion's Atlantic coast area.

The Nanaimo River, however, was lacking in this profitable species of salmon and the Fisheries Department decided to introduce it to this particular body of water. Physical conditions were found to be fairly suitable but there were two possible adverse factors -- plankton seemed rather scarce and there was a large trout population. Plankton is floating organic life found at various depths of the ocean. Trout are enemies of the young salmon.

Eggs were planted in the Nanaimo in 1933. The young fish swam to the sea and returned five years later when matured. That was last summer. They were believed to be the same fish because the Nanaimo River is not naturally a Sockeye residence and the "homing" instinct after five years is a family trait.

The marketed value of salmon in 1936 was close to \$14,000,000, of which 96½ per cent is credited to British Columbia and the remaining amount to the four Atlantic coast provinces, according to the Fisheries Statistics Branch of the Dominion Bureau of Statistics.

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No. 129. Sun. Feb. 6, 1938 -- Apples to Harden Steel

Wonders will never cease, we say to ourselves, when we pick up a publication of the National Research Council and find that apples are being used to harden steel. Think of it, pectin from the waste apples of the orchard, with which we are familiar in jelly making, finds a new role in the steel industry. It may also be made into a resin or into a plastic composition which may be employed as a binder for abrasive substances and composition wood. The disintegrated mass pressed from apples and known as pomace now makes a good cattle feed.



The surplus production of potatoes has recently become a problem to Canadian farmers, particularly in the Maritime Provinces, as their markets in the New England States have been much lessened. Although some of the excess potatoes can be used as feed for livestock and in the production of alcohol and starch, this does not solve the difficulty. But fusel oil, a by-product from the distillation of ordinary alcohol produced by fermentation, contains an alcohol which is used as a solvent of cellulose in making so-called "dope" for covering the fabric of aeroplanes. Fusel oil may also be used in lacquers and varnishes.

Coming back to silk, one of our commonest proverbs is that you can't make a silk purse out of a sow's ear. That may have been true in past times but at an exhibition of cellulose products in Montreal, a purse was exhibited made of artificial silk obtained from the cellulose in a sow's ear.

By the way, the chemists are working on a cement or filling which will stick metal to glass as well as metal to stone. And they'll find it.

Long ago, when ladies wanted to make their hands soft and white, they rubbed them with wet oatmeal, and for many years it has been used in soaps and as a skin application. Recently a special process has been developed whereby oats are made into a soft powder and incorporated into a perfumed cosmetic.

#### No. 130. Mon. Feb. 7, 1938 --- Substitutes

Even those of us who are not scientists are becoming quite familiar with two words that mean a great deal to the present generation and are likely to prove of very much greater value to the generations to come. Synthetics and plastics are fast becoming household words. By synthetics we mean compounds formerly obtained from natural sources, that are now built up artificially by the union of simpler compounds or elements. For ordinary purposes however the words alternatives or substitutes seem to convey the meaning.

For example, we all know what rubber is, and that we, in this country, get most of the raw material from British Malaya. We know also that there is now such a thing as synthetic rubber, a compound which can be made to take the place of rubber.

We know that indigo blue was obtained originally from a plant in India. It is one of the oldest known dyes, but it has been largely supplanted by various synthetic blues, including indigo. Chemists have given us the artificial varieties and, since the beginning of the present century, natural indigo cultivation has greatly declined.

A plastic is a synthetic substance that can be moulded under heat and pressure to any desired shape and which, when cooled, retains that shape. It becomes useless for any other purpose. One of these is plastacele which makes the new boxes so light in weight, durable and easy to clean -- a great thing for the dressing room for you can see what is contained in the boxes without opening them. They are just as clear as glass.

These new raw materials tell us golden stories of progress that in the hurley burley of modern life we lightly consider.

No. 131. Tues. Feb. 8, 1938 --- Substitutes - 2

The scientist gives us the stories of substitutes in a way all his own. He is an adventurer just as much as was Cook or Magellan. He is urged to his task by the thrill of discovery and he works on and on and on, dominated by the desire to find something that will be of benefit to his fellow men. So, it is not unexpected to find that these hardworking adventurers preface the announcement of the records of their achievements with simple, easily remembered tales.

In the year 1868, billiard players were alarmed at the prospect of a shortage of elephant tusks from Africa. Billiard balls were made from that ivory. To protect the growing market for billiard balls and piano keys a manufacturer offered a prize of ten thousand dollars to anyone who could find a reliable ivory substitute. A young American printer, John Hyatt, found it. By treating cotton linters with nitric acid, Hyatt produced a cellulose nitrate solid which filled the bill. It was the world's first plastic.

Young girls of today, practising their piano exercises, touch with their fingers beautiful cream-white keys, but their mothers and grandmothers fingered keys that were yellow with age, for natural ivory became yellow very quickly. The first time you have a chance to examine an old spinet, look at the keys. What we call the white ones, will be brownish.

The arrival of substitutes was not welcomed by all, particularly by those who are forever searching for gems. The Hindus prize the ruby above all other precious stones. It is said to bring its wearer, health, wealth, wisdom and happiness, and is the emblem of true love. It is called the most precious of the twelve stones God created when He made all creatures. By the Lord's command the ruby was placed on Aaron's neck.

Synthetic rubies were first placed on the market in 1900 and synthetic sapphires about ten years later. Those which most perfectly reproduced the genuine were exported to the Orient where they were cut by natives and often sold to tourists as genuine ones. A zealous young missionary, with a sparse pocketbook, once purchased a ruby ring for his lady, and when he returned home to Toronto to marry her, presented the ring to her. She learned later on that it was an imitation, but, like the true lady she was, she never told her husband that he had been gypped.

Nowadays we have all sorts of substitutes for the expensive jewellery that at one time could only be purchased by the rich. They are very beautiful, which after all is the main object and, when a young girl can procure for a few cents what her mother had to pay as many dollars for, why not? The pleasure is hers just the same, and she is adorned just as much as her wealthy sister. Go into a ten-cent store and you will see bangles on display that a king's ransom couldn't have bought before synthetics arrived and yet a robber would not think it worth while to steal. The scientists have done much to put all people on a level. They are great socialists.

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No. 132. Wed. Feb. 9, 1938 --- Substitutes - 3

During the Great War, when the Germans ran short of coffee, they invented a substitute. It was made of malt and grape sugar. Large quantities are sold yet. Oleomargarine is a favourite substitute for butter in many countries but is banned in Canada.



The Italian scientists have turned out a synthetic wool which they call lanital. It is made of skim milk.

This brings us to the farm yard. The days have long passed when the farm was looked upon only as a place from which milk, butter, eggs, cheese, beef, mutton, grains, root crops and a few other things could be obtained for human consumption. The farm is now a major producer of the materials which go into the manufacture of synthetics.

Buttons, for instance. They were originally made of horn or bone, but now most of them are made from skim milk, others of metal and wood.

The National Research Council is a congregation of scientists who are doing a great work for Canada. We learn from them that most of the casein hitherto made in Canada has been of a type which, while suitable for use in the manufacture of coated paper, is unsuitable for the production of casein plastics, such as buttons and buckles. The art of making it suitable for plastics has been developed in France and most of the plastic casein used in Canada in the button trade was formerly imported from that country. We now get our largest supply of casein for all general purposes from New Zealand.

It is curious to reflect that the mother-of-pearl button which used to be made from the inside lining of an oyster shell now comes from the milk of a dairy cow.

Towards the end of the last century a German schoolmaster wanted, paradoxically, a white blackboard. After numerous efforts, he met with success. By mixing sour milk with formaldehyde he developed a shiny hornlike substance which has as its base casein. It was the second plastic. The first was the celluloid billiard ball.

Research on plastic casein has been undertaken in the laboratories of the National Research Council, in order to make possible the giving of reliable, practical advice to the several firms in Canada wishing to take up the production of the material.

The soya bean is another agriculture product that is now much used in manufacturing plastics. Soya bean cake offers immense possibilities, in the manufacture of radio cabinets, containers, flooring tiles, table tops, buttons, spools and shuttles for the textile industries. From the soya bean we make a strong glue that is used much in the plywood industry.

We have now a synthetic resin made from acetylene. It goes into varnishes and lacquers. It also makes cups and saucers, drinking vessels and other containers.

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No. 133. Thurs. Feb. 10, 1938 -- Substitutes - 4

Perhaps the most wonderful of all the newest plastics is the substitute for glass. A magazine arrived at the Bureau of Statistics a few months ago which featured the picture of a young lady looking through a cylinder of lucite, nine and a half inches thick. It was perfectly clear. It seemed to be clearer than optical glass and was only half the weight and non-shatterable.

Raw materials which go into its manufacture are coal, air and water. Unlike glass, this new substance may be dropped on the floor or thrown against a wall without breaking. It is very light in weight.

One of its unusual qualities is its ability to bend light around corners. No plastic appears to have a more promising future. It is taking the place of glass in automobiles, and when one learns that the framework of the windows, steering wheel, dials and other automobile fittings are made of plastic casein or soya bean meal, the whole thing becomes marvellous in our eyes.

The lady's dressing room illustrates the extent to which synthetics have carried us. The lingerie is, no doubt, of imitation silk made of wood, for there are not enough silk worms in all the world to supply the great demand for that material. Silk stockings may contain no real silk. The scientist is also busily engaged endeavouring to discover an effective remedy for runs in stockings.

The tooth brush handles, combs, brushes, mirrors and vanity boxes are all plastic productions. So are the shoe heel coverings and buckles and countless other articles, big and small.

The plastic bottle tops are particularly interesting. They screw on to the containers. The pop of the cork as it is pulled is rarely heard now and the corkscrew has already become an old-fashioned household implement. Occasionally when one is required, nobody can tell where it is.

Down in the living room there are the clock cases, the electrical fittings, lamp shades in delicate colours, book-ends, picture frames and the fish bowl. Even the piano frame, or part of it, may be of that same substitute for glass, through which we can see all the works. It is made of cellulose sheeting instead of wood. The ends are of wood, however, covered in the same material, and the bench is made entirely of the plastic.

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No. 134. Fri. Feb. 11, 1938 -- Recovered Greases

In the City of Bradford, England, recent research work has been done in the recovery of grease from the textile industry, particularly the wool industry. Raw wool contains oil from the sheep's body and has to be cleared of it before being prepared for the market.

At Bradford, a solvent plant which cost a very large sum of money in the late stages of the Great War, and which has been in disuse ever since, now comes into useful service again. Within its walls, machinery to recover one-third of the output of raw grease is being installed. It is hoped that further research will not only save the waste grease but introduce entirely new and valuable products.

The new development consists of a series of processes, each one operating on the product of the previous one. Process one converts the grease into crude soap, which may be made into powder. Many users are interested in this crude soap powder; many tons have been sold from the first experimental plant, and the material has given satisfaction.

Process two separates the almost pure soap from the less soluble fats or oils. These fats can be used in lubricating oil and there are possibilities for it in the making of dyestuffs. Processes three and four treat the pure soap from process two to obtain stearin and other fatty acids. A by-product is a hard pitch for which there is plenty of demand on the English market.



Stearin and other fatty acids are used in the manufacture of soap. In 1936 nearly two million pounds of these fatty acids were used in Canada by this industry according to the Mining Branch of the Dominion Bureau of Statistics.

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No. 135. Sat. Feb. 12, 1938 -- Canada's First Movies

In 1896 John Griffin, popularly described as "the father of motion picture houses in Canada", opened the first regular Canadian motion picture theatre on Yonge Street in Toronto. Shortly afterwards, L. E. Ouimet opened a similar theatre in Montreal. Pictures were shown of the Corbett-Fitzsimmons fight in 1896, Queen Victoria's jubilee procession in 1897, and the departure of the Canadian contingent for South Africa in 1900.

Films of this early period consisted of only one reel and, as the novelty wore off, interest in them began to die out. In 1903 Edwin S. Porter made a picture which told a "story". The narrative was conveyed to the audience by means of pantomime, printed dialogue flashed on the screen to explain the actions of the characters or what they said.

In 1926 Warner Brothers presented the first talking and sound pictures in New York. Over night Canadian theatres installed sound equipment and the "silent" picture practically disappeared.

"Talking" or "sound" pictures, technicolor and many other improvements demand a high degree of skill and technical knowledge, as well as heavy capital investment. However, "short subject" informative films have been produced with a considerable success.

The number of motion picture theatres increased from 862 in 1935 to 959 in 1936 according to a report on the census of service establishments from the Internal Trade Branch of the Dominion Bureau of Statistics.

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No. 136. Sun. Feb. 13, 1938 -- The Order of the Garter

The Most Noble Order of the Garter is a famous British order of knighthood instituted by King Edward III. The often-cited tradition as to the emblem and motto is that the Countess of Salisbury dropped her garter when dancing with the King. He picked it up and tied it around his own leg, but when he observed the glances of the Queen, he returned the garter to its owner with the remark, "Dishonored be he who thinks ill of it."

The Garter, which was at first of light blue silk with the motto sometimes set in pearls, rubies and diamonds is now of dark blue velvet about one inch wide. The motto is in gold letters and is now translated as "Evil be to him who evil thinks." The Garter is worn on the left leg a little below the knee but when the sovereign is a queen, she wears it as sovereign of the order on the left arm above the elbow.

Knights of the Garter write K.G. after their names. For two centuries past the companions have been almost exclusively peers or the eldest sons of peers. Queen Elizabeth belongs to the Order as Lady of the Garter. All the male members of the Royal Family are members. The Kings of Italy, of Sweden, of Norway, of Denmark, King Alfonso XIII and the Emperor of Japan are other members. Sir Austen Chamberlain and Stanley Baldwin were two Commoners to receive this rare distinction. The member-

ship originally was 25 but has been increased to about 50.

This story was brought to mind by a report on Men's Furnishing Goods by the General Manufacturers Branch of the Dominion Bureau of Statistics wherein was the following statement, "Exports in this industry were very small and in 1936 consisted mainly of braces and suspenders to the value of \$9,894". They were sent mainly to Jamaica, British South Africa and the United Kingdom.

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No. 137. Mon. Feb. 14, 1938 -- St. Valentine's Day

This is St. Valentine's Day, the day devoted to the memory of that Roman priest, the Bishop of Spoleto, who was martyred on February 14, 271. St. Valentine is regarded as the patron saint of lovers. How that came to be is somewhat vague, but it is generally agreed that he was so famous for his love and charity that the custom of choosing valentines upon his festival took its form.

The Emperor Claudius ruled Rome. He was surnamed the Cruel. Near the palace was a Greek temple whose high priest was Valentine. He was very popular and his church was crowded with worshippers. War broke out and the citizens were summoned to battle. But the wars continued year after year and many were loath to join the ranks. The married men did not want to leave their families and the unmarried men openly demurred at leaving their betrothed. At this the angry Claudius issued a decree that there should be no more marriages and engagements should be broken. There were heavy hearts in Rome.

One day the good priest married a couple in secret, standing under the holy altars. Other couples came to him and he married them. Before long the marriage business was as good as ever.

Claudius was furious and ordered Valentine cast into a dungeon. In vain did the Emperor's counsellors plead for him. Powerful friends warned Claudius that trouble might result. However, it is said that Valentine was beaten with clubs and then beheaded. The greater part of his remains are in a church at Rome.

To keep his memory green, many couples were married on February 14, St. Valentine's Day.

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No. 138. Tues. Feb. 15, 1938 -- Smoking Fish at Home

The simplest and oldest methods of preserving the surplus catch of fish are drying in the open air and smoking. The methods of smoking vary endlessly, though the principle is the same, namely to impregnate the flesh sufficiently with creosote from the wood smoke to prevent the growth of bacteria and moulds.

The principal requisite for a prime smoked product is that the fish be fat and oily. Before the smoking takes place the fish are "salted" in brine for two or three days.

Smoking fish at home is similar to that done by commercial firms but, of course, on a much smaller scale. When the haddock or cod has been removed from the "pickle" it is dipped into fresh water, allowed to drain, and then hung on rods in the smoke house or smoking chamber. A hardwood or sawdust fire produces the smoke. The longer the soaking in brine and the hours of smoking, the longer the keeping qualities.



More than a dozen kinds of fish are marketed by Canada's fish smokers. The biggest production comes from the Atlantic provinces.

In 1936 smoked herring came first so far as volume was concerned, followed by cod. All save a small part of the smoked cod production consisted of fillets. Total smoked herring amounted to 60,000 cwt and cod 54,000 cwt. There were 26,000 cwt of smoked haddock supplying the market with the well-known "finnan haddie".

This information comes from the Fisheries Branch of the Dominion Bureau of Statistics.

No. 139. Wed. Feb. 16, 1938 -- See the Snowshoers

When a hundred snowshoers set out on an afternoon tramp, they make a bright and picturesque appearance on the white landscape. They provide a thrill that no other out-of-door sport in Canada can emulate, for there are several things about it that make it unique. It is the one all-Canadian means of winter transport that is left to us after the inroads of such an attractive means of travel as the Norwegian ski and other things. It has come down to us from the aboriginal inhabitants of the country.

It is a means of winter transport, moreover, that leaves behind it a trail that is beautiful and artistic, for the mark of the snowshoe is pretty.

There is something else about snowshoeing that is very beautiful. It is the costumes of the young men and the young women who set out together to spend a few hours in joyous adventure and rivalry in the race.

They wear heavy coloured blanket coats with hoods and on their heads are coloured tuques. About their waists are gay belts of red, blue, green or yellow. They have blue or scarlet leggings laced up with other coloured ribbons, and their moccasins are also embroidered with colour. They make a vivid scene.

Perhaps not many people realize, as they glance at the gaily clad snowshoers on their tramp, that they are witnessing just such a scene as occurred hundreds of years ago when Quebec was young. These present day costumes were the winter clothing of the nobility of New France. Probably the only difference was that the young people of Quebec of the old days had dyed porcupine quills in their moccasins and they wore caps of beaver or marten which were sometimes tied down over their ears with brightly coloured silk handkerchiefs. The less well-off were more sombrely caparisoned.

The splendour of the clothing and its serviceable nature were the outcome of a general training in weaving which laid the foundation of the great textile industry to which Canada owes so much today. The French were the pioneers of that trade - they were the skilled mechanics. How that came about is intensely interesting. See No. 140 on Early Canadian Industry.

The number of snowshoes produced annually in Canada is increasing, as shown by the figures for 1936. Their factory value was double that of the year before.

No. 140. Thurs. Feb. 17, 1938 -- Early Canadian Industry - 1

You will remember that from the early beginnings of both French and English colonies on this continent it was the policy and practice of the home governments to look upon colonists as commercial assets for the benefit of factory owners in France and later England who would enrich themselves through sales in the colonies and the maintenance of prices. They discouraged manufacture by the colonials.

One great man recognized the futility of the policy and set himself to overcome it. The Intendant Talon saw that the planting of domestic industries was for the benefit of the colonists and in times of need would be a relief to the home government. As early as 1671 he wrote that he had caused druggets, coarse camlet, bolting cloth, serge, woollen cloth and leather to be made in the colony of New France. He said proudly: "I have, of Canadian make, wherewithal to clothe myself from head to foot."

The Ursuline nuns had vision and understanding and assisted him in his policy. They taught the young girls of the colony to spin and weave while attending their schools. It was part of their scholastic education. The direct result was that these young girls, when they went out into the world and married the farmers and hunters of Quebec, carried with them all over the country a knowledge of their art.

Part of the equipment of every home became the wool spinning-wheel and weaving-loom. These industrious women provided every fabric required in the household. They made the clothes that they and their husbands and children wore. The towels, the carpets, the curtains and the bed clothes were all made by them. They did wonderful work, many of their descendants are still doing it and their home manufacture is much prized.

S.B. Biggar, a noted authority on the textile industry, a man of Scottish origin, wrote many years ago that those who survey with pride its present magnitude and high character must not forget how much we are indebted to the skill, patience and deftness of the French-Canadian for its early success as a native industry and for its later achievements under the modern factory system. If the French-Canadian had not become a strong element in the population, the cotton, woollen, silk and other textile industries of Canada would not have become what they are today, nor could our boot and shoe and other branches of the leather trades have attained their present enviable position. Indeed, he said, the United States itself could never have gained its prominence in cotton manufacturing and in boot and shoe manufacturing had it not been able to draw upon the Province of Quebec for its factory hands.

This, to a large extent, explains why so many French-Canadians are living in the United States.

No. 141. Fri. Feb. 18, 1938 -- Early Canadian Industry - 2

Fabrics were woven on hand looms, made entirely of wood. The reeds were of hickory. The carding was done on hand cards not unlike curry combs for grooming horses. The dyes were obtained from the roots of wild plants and butternut wood, and in the making of these dyes they received much assistance from the Indians. The coloured sashes were made by braiding. This ceinture flèche has never been successfully imitated on a loom. It took about two weeks to make a single sash and the most expert makers were the Indian women. However, it is now almost an extinct industry. A good ceinture flèche is highly prized and will bring as much as \$50.



As a complement to the native woollen industry the grazing of sheep and goats and the growing of flax and hemp for linen cloth and cordage was attempted with more or less success in the early years of the French regime. The Jesuit Relations in 1668 show the existence of hat makers and shoe makers. They spoke of establishing manufactures of linen cloth and leather. Sheep raising grew steadily but the raising of goats made little or no headway.

The settlers in Acadia also learned domestic weaving and, as time went on, there were new arrivals from the north of Ireland, who were skilled in the making of linen. Among the settlers that Cornwallis brought were men skilled in the making of gloves, needles and hats.

The old trouble of jealousy on the part of the Old Country manufacturers broke out under British dominion in Canada but the settlers found a friend in Lieutenant-Governor Francklin of Nova Scotia. He seems to have had the confidence of his home government also. His letters were helpful and managed to satisfy the British authorities.

The situation led Murdock, the Nova Scotia historian, to remark: "It is obvious from this as well as from a multitude of other facts, that a close jealousy existed among the manufacturers of England against any attempts in America to do anything in that line; and this narrow policy, influenced by a few avaricious capitalists engaged in manufactures, did more to lose the old Provinces (The New England States) to England than any other circumstance."

The output of textiles remained a domestic industry until about one hundred years ago. To erect mills and establish factories had been impossible under both French and English imperial policy. But some good came out of it. When factories did come into existence, which was in the early 1800's, there were ready to hand a great many skilled workers who were able to operate the looms and machines, and who had a thorough knowledge of the arts of weaving and dyeing. It was an advantage to organized industry. It made for immediate efficiency and rapid advancement.

The first application of power was in carding and fulling. Machines of American design were introduced and they were operated with water power.

The textile industry is not the oldest in Canada. That honour belongs -- and naturally so -- to milling, for people must have food, and flour had to be manufactured for the early colonists. But weaving came next, for people must be clothed.

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No. 142. Sat. Feb. 19, 1938 --- Early Canadian Industry - 3

Once on its feet as a well-organized industry, textile manufacturing made rapid progress until after not much more than a century of operation, there are now 2,230 establishments in Canada with a capital of over 300 million dollars, and 116 thousand employees, more than half of whom are women. The factory value of the output is about 400 million dollars. That is a tremendous achievement. Our exports are now running over ten million dollars and have doubled in the last four years.

A third essential in the early life of Canada, coming after, if not alongside, food and clothing was footwear. Moccasins were largely in vogue but sabots or wooden clogs were much used in summer. These could be made at home with skilful hands and very few tools. Occasionally the sabot may be seen yet in a Canadian farm yard.

But a progressive race in this climate must have boots and shoes and the cobbler was in evidence in every community. From the cobbler at his last has grown the leather footwear industry of Canada. It is one of those outstanding activities that have measured up splendidly to the needs of the Dominion. It has flourished and expanded because it has adapted itself to the special requirements of its own particular market. It has developed a type of shoe that has been suited to the climatic conditions of the city, the country, the woods and the mines.

An excellent testimony to the efficiency of those who have developed that industry is that, from the date of the transition from the cobbler, who measured a foot and fashioned a remarkably fine boot by hand, to the machine-made product, the industry has been retained to a large extent in the same places as saw its beginning.

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No. 143. Sun. Feb. 20, 1938 -- Rapid Development

It seems extraordinary that it was less than a century ago that the first sewing machines were installed in a Montreal factory.

In the year 1928, the peak year of our prosperity in the post-war period, when employment was at its height and wages good, the factories had a record output of 21 million pairs of boots and shoes. When the depression came the production dropped off considerably. Then the betterment came again and the number of pairs turned out now is far ahead of the best years of the late twenties.

A point worth noting is that the majority of the output is of women's footwear. Canadian women have the reputation of being particular about their shoes and a great deal of this credit is due to the ladies of Quebec. Their country of origin has long been noted for its daintily-shod women and it is observed in our trade records that, when very expensive ladies' footwear is imported, it comes mainly from France. It is a curious little weakness in many a lady's make-up that while she may be able to get just as good an article at home, she loves to exhibit a shoe and say with pride that it came from Paris.

Three years ago our exports were 64 thousand pairs, so Canadian shoes must be appreciated abroad.

From spinning and weaving cloth and from tailoring and dressmaking we have developed garment-making factories. While some men and women still have their clothing made to order and by hand, most clothes are now made in these garment factories. We may have fewer tailors and dressmakers than we used to have, but we have more clothes and dresses. We also have fewer cobblers and makers of custom-built shoes but we have more footwear and many other kinds of leather goods made in factories.

The men and women of these handicrafts, particularly in Quebec, laid the foundations of great enterprises, created the atmosphere and skill which made possible the rapid expansion of these and many other industries that now go to form our industrial network.

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No. 144. Mon. Feb. 21, 1938 -- Amethysts for February

Amethyst is a violet or purple variety of quartz serving as an ornamental stone. The ancient Egyptians used it as a gem-stone and it was largely employed in antiquity for engraved designs.



The Greeks believed that the stone had the power to prevent intoxication. For this reason wine was drunk from sparkling amethyst cups. In Biblical times it represented justice and courage and was the stone of the tribe of Dan, which stood for judgment. It is used for episcopal rings.

It is a very widely distributed mineral but fine, clear specimens fit for cutting as ornamental stones are confined to comparatively few localities. Much fine amethyst comes from Russia. Catherine the Great was very devoted to the amethyst and sent thousands of workers to the Uralian mines to search for the stone.

On exposure to heat, amethyst generally becomes yellow and much of the cairngorm or yellow quartz of jewellery is said to be merely "burnt amethyst". But, guarded from intense heat and strong sunlight, it will retain its colour indefinitely.

Uralian or Siberian amethysts are the best quality, having a deep red-purple colour. Uruguay furnishes a beautiful violet-red. Other important localities for amethysts are Ceylon and Madagascar.

Among the previous stones imported into Canada there is none shown as coming from Russia although the fine amethysts of that country are obtainable on the Canadian market. Undoubtedly they reach us as imports from another country and therefore figures are not available.

No. 145. Tues. Feb. 22, 1938 ... A Canadian's Expectation of Life - 1

In the allegory of the Vision of Mirzah, Addison describes life as a bridge consisting of about 70 arches with a number of broken spans at the end. During the travel of man across this bridge, traps representing disease and premature death are constantly opening and men are falling through into the abyss. Modern science has made enormous strides in closing up the traps of early and middle life, but has done little towards repairing the broken arches at the end.

The great French writer Balzac, who reveals to us the springs of passion in the minds of his characters and creates lasting impressions on his readers as possibly no other novelist has quite so well done, gives us a picture of an alchemist at work seeking persistently for the elixir, the water of life. Every reader of Balzac will remember the story, or at least the purpose of the alchemist, and will thereby be well equipped to visualize the struggle of science to discover that element or that something which would enable mankind to live almost forever and to contrast the pursuit with the present day results achieved. The modern scientist approaches the problem from a totally different angle.

During the Dark Ages in Europe the alchemists were practically the only workers who were bent on discovering new substances or processes. For the most part, however, they concentrated upon the discovery of the "philosopher's stone" and the "elixir of life". The philosopher's stone was the element, mixture, or solid substance which would have the property of converting the baser metals into gold and the elixir of life was an imaginary liquid supposed to be capable of prolonging life indefinitely. Some of these alchemists were honest but many of them were simply charlatans.

The light of the newer world began to dawn in the 1600's with the modern conception of an element and from then until now we have gradually acquired some true knowledge of the way in which to stall off death, not indefinitely, but rather to prevent people dying prematurely.

Now we come directly to the question of the expectation of life of a Canadian. How many people can expect to live for a century as did Mrs. Fulsher, who passed away this year at her home in Half-Way-House, a few miles north of Winnipeg? She was the lady whom raiding Indians in 1870 called "Spotted Dog" because of her freckles and her courage in holding them at bay with an old rifle. They admired her pluck in saving the family possessions.

What gave her that longevity? She was twice married and had twelve children. She came of a long-lived family, her grandmother having lived to 106 and her mother 99. She was a very active woman, until only a week before her death. Heredity usually plays a part in reaching old age; it appears to have done so in her case. Princess Louise, widow of the ninth Duke of Argyle, who, as the Marquis of Lorne, was Governor-General of Canada in the seventies, opened an exhibition on Saturday. She leads a very busy life at almost 90. Her mother, Queen Victoria, died at 82. Her brother, the Duke of Connaught, Governor-General of Canada a quarter of a century ago, is in his 88th year. Heredity again.

No. 146. Wed. Feb. 23, 1938 - A Canadian's Expectation of Life - 2

What we mean by the expectation of life may be worked out in this way. Take one hundred thousand children at the age of five and keep track of them until their deaths, and the average length of time they lived would have been their expectation of life. The same can be done with any other age.

The expectation of a boy just born is 60 years; of a girl just born it is 62 years. Because of the heavy mortality in the first year of life, particularly among boys, the child's expectation increases from week to week during the first perilous year of its existence, and the anxiety of the parents decreases accordingly. The one-year old Canadian boy has the expectation of reaching the age of 65 and the Canadian girl 66. The boy has gained five years and the girl four above their expectation at birth.

It is after the age of 21 that the expectation of life steadily decreases. When a Canadian boy reaches his majority he has in prospect 48 years to live, or to the age 69. That is by the law of averages. When he gets to 40 he may anticipate 32 years more, or until he is 72. When he retires, say at 65, he may expect to have a comfortable thirteen years of retirement and pass on at 78. If he reaches 80, he should live for six years more. When he arrives at the century mark his expectation of life is two years.

Of course, the expectation of life, as long as one is not on his deathbed, never goes down quite to zero, but for statistical purposes it is assumed that zero is one hundred and ten. That does not mean, however, that one hundred and ten should be considered the extreme upper limit of life. We cannot forget the story of Methuselah, who is credited with 969 years.

The result of the Bureau's investigations tends to reinforce the Biblical dictum that the length of life is three score years and ten. At the younger ages and up to the age of 50 the improvement in Canada was very marked in the ten years of which we have record, but above 70 there was a deterioration in vitality though it was very slight. It seems that today, in Canada in particular, there are far more people attaining the allotted span than ever before in history, but there are not appreciably more centenarians than there were a hundred years ago.



On the other hand the decreasing mortality at younger ages is a token of the vastly smaller amount of illness among young people today. Life is improving at the ages of health and vigour -- at older ages Nature seems to continue her procedure of making way for new life despite all man's efforts.

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No. 147. Thurs. Feb. 24, 1938 -- A Canadian's Expectation of Life - 3

It was only in 1926 that the registration area for births and deaths was extended to include all of the nine provinces and so it is only during a ten year period that we can cite positive data and make a definite analysis. We have to turn, therefore, to an old country like England to get a series of conclusions which we, in a young country like Canada, lack the figures to obtain.

The first official British life table was calculated on the bases of the census of 1841 and the most recent in 1931. The expectation of life at birth has risen in these 90 years from 40 years to 59 years. But this increase of 19 years gives little idea of the enormous improvement in the changes of life at certain younger ages. The chance of a man of twenty dying within a year was cut down from eight out of one thousand to three out of a thousand. At the older ages, on the other hand, the improvement was small. The expectation of life to a man of 60, for example, only increased by about nine months.

In order to test whether the trend of mortality for Canada has been similar to that of England, a calculation was made by the Dominion Bureau of Statistics for the eight provinces whose deaths for 1921 were available and comparable with the mortality of the same provinces in 1931. It was found that the expectation of life at the age of five had gone up by the very considerable amount of a year and a half in the ten years, while the expectation of life at 65 had only increased by twenty days -- not a significant amount.

Thus in Canada, as in England, it appears that the chances of reaching the usual retirement age are improving with time, but that the expectation of retired life is not increasing at the same rate.

It has been shown that the Canadian boy of five can look forward to two full years more of life than the British boy of five. The Canadian at 40 has 32 years in front of him as against less than 30 for his British cousin. Even at 75 there is a difference in favour of the Canadian of a little more than a year.

What about the Americans? We find that at the younger ages the Canadian superiority is more marked over them than over the British but at ages over 50 they are longer lived than the British but not quite so long lived as the Canadians.

The same story may be told of other countries. In a list of 15 countries, only two show a higher expectation of life for boys of five than Canada, these being Denmark and Holland. An examination in detail of the yearly chances of dying indicates that between the ages of 20 and 50 these are the only two countries that give a better expectation. At the very early ages, however, Australia has a better record and at the later ages Sweden. The expectation of life of an Italian child of five is almost three years less than that of a Canadian, a Japanese child twelve years less and an East Indian 24 years less.

No. 148. Fri. Feb. 25, 1938 -- A Canadian's Expectation of Life - 4

There must be a reason for the great longevity of Canadians. Is it our healthy, rugged climate? Is it a superior resistance to disease or the stronger physique of the Canadian? Is it due to our advanced medical facilities? Is it our comparative wealth, our higher standard of living, our fine social service? What is it?

The idea of the Bureau is that all of these things enter into the picture, but it cannot be denied that there is another element which has a bearing upon the great longevity of the Canadian.

Consider for a moment the probability of a person aged 25 dying within five years. The probability is greatest in the Maritimes and least in the Prairies, being twice as high in the former as in the latter. The expectation of life at the age of five is over 64 years in the Prairies and under 61 in Quebec, to take the two extremes.

Why should the Prairies show better than Quebec and the Maritimes? The answer is simple. When large movements of population take place, there is a tendency for the more healthy and energetic elements to move, while the less healthy people stay at home. To move to a strange land requires, even in this day, something of the pioneering spirit. Hence it is that the Western Provinces of Canada have the lightest mortality. These Provinces have received much of their population very recently.

This completes the contrast between the science of today and the Dark Ages. The scientists of long ago searched for an elixir of life which they never found. It was a dream. The scientist of today has given us better food, better living conditions, better physicians and dentists -- all the equipment of modern life to withstand so far as humanly possible the ravages of time. We have not been given an indefinite span of life but we have been given a longer average sojourn upon this earth. The ancients worked without result, they missed what modern science discovered.

No. 149. Sat. Feb. 26, 1938 -- A Canadian's Expectation of Life - 5

In most countries women seem to live longer than men, and this is true of Canada. At birth the difference in expectation of life is two years in favour of the girl infant, although after the first year the advantage is reduced somewhat. However, as we follow their course through life we find that this lower female mortality disappears about the age of 23 and gives way to a distinctly lower male mortality. In fact the female mortality keeps rising above the male mortality until the maximum difference is reached at the age of 31. At that age it begins to fall with respect to males until at the age of 42 it falls below and remains below male mortality for the rest of life.

There is little doubt that this higher female mortality, which occurs at the point of life when the risks attached to childbirth are most present, is related to, if not brought on entirely by such risks. It is gratifying to note that it decreased considerably between 1921 and 1931.

It is rather remarkable that each of the five geographical divisions of Canada tells very nearly the same story with regard to the difference between male and female mortality in the Dominion as a whole. There is, however, one exception. British Columbia shows a higher mortality for males than for females at every age of life outside the short period from 11 to 15 years.



We have seen that the trend in mortality has been downward for 90 years in England so that the expectation of life at birth has risen from 40 to 59 years. Progress has been made at the same rate in Canada during the ten years of which we have a full and accurate knowledge. Mortality is decreasing in the middle ages of life.

Is there to be any limit to this power? Will the expectation of life at birth continue advancing until it reaches 80 or 100 years? That would depend upon a continuance of the present rate of improvement in sanitation and medical science.

But many authorities believe there is a kind of law of diminishing returns in this matter, so that beyond a certain point vast effort will bring about only a small change and that an ultimate limit to the present trend of improvement may be an expectation of life at birth of 70 years.

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No. 150. Sun. Feb. 27, 1938 --- Bringing Things to Canada from Afar

Even if a great deal of the romance of the sea has departed since the glorious spread of white wings bellying to the breeze, gave way to steam, with black smoke belching into the air from ugly funnels, there yet remain intriguing stories that stir the heart and the imagination.

We have an intimacy with the ships that nose their way, by day and by night, into friendly ports, for they carry freight that is precious to us. It may be human freight, or it may be the odds and ends that make the family supper table the pleasantest place of all festivity. It may be the raw material for the factory, without which thousands of men and women would not be given employment, or it may be costly jewels to adorn the ladies whose husbands and fathers have been earning more yellow gold than was necessary just to keep the pot boiling.

You can picture a rusty trader limping into Vancouver or up the St. Lawrence. She has been on the tramp all over the world, perhaps for years, picking up things here, there and everywhere. To the eye unacquainted with the sea and its ships she is a miserable-looking object, not much better than an untended cottage whose weathered boards have been shorn of their paint by the ravages of nature.

But the sweet lines of her make the eyes of the sailor-man sparkle and he sees her as she will be when she goes into dry dock, gets a lick of paint on her sides and has the barnacles scraped from her under-water hull. She will set out again on her travels, as fresh and spruce as the young lady who, when the spring sun chases old winter away, throws aside the gear that kept her warm in the cold months and trips to church on Eastern Sunday with her new hat, looking fine and dandy.

But before the ship has been scraped and cleaned and painted she has had a busy time at the docks. She has sent ashore a cargo, every item of which is eagerly awaited by somebody. It is a fascinating mixture of goods. For days a young man has been pacing that dock to and fro. Quite evidently he is labouring under some excitement. Every now and then he inquires at the steamship offices when they think the "Westward Ho" will arrive, and the clerk, knowing full well from old experience why that special ship has a particular interest for him, tells him the expected hour. Out the lad goes to the end of the pier again and scans the horizon.

At long last, a busy little tug swings the ocean traveller alongside the dock and there, leaning over the rail of the ship, is the lady who is to grace a little home, to make fuller the niche which the young man has carved for himself in his new land of promise.

This is a common, everyday sight at the great ports of the Dominion; the arrival of the most precious freight that has been carried across the seas. There is nothing in the world so fine as good people. Sometimes we forget that.

There are three million people in the country who were not born in this Dominion.

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No. 151. Mon. Feb. 28, 1938 -- Trade Has Queer Angles

Trade has some queer angles. As a rule we import what we do not ourselves produce but there are times when we bring in commodities of which we have a great abundance. An example is pulpwood. While our total imports are relatively insignificant, it does seem like carrying coals to Newcastle to bring pulpwood from the United States to Canada. It happens in a few cases where a Canadian pulpmill is located near the American border, with a small source of pulpwood only a few miles from the mill, but on the other side of the line.

Canada is the fifth trading nation in the world and the fourth in exports. Canada last year was eighth in imports, in purchased goods, being exceeded only by the United Kingdom, the United States, Germany, France, Japan, Belgium and the Netherlands.

Per capita trade is interesting. The leading importing country of the world last year was New Zealand with \$112 per capita. Switzerland was second and the others in order of importance were Denmark, the United Kingdom, Norway, Netherlands, Sweden and Australia. Canada was in tenth place with \$56 per capita. New Zealand was also first in per capita exports with \$145 and Canada was second with \$91, the next eight being Denmark, Belgium, Australia, Switzerland, South Africa, Sweden, Norway and the Netherlands.

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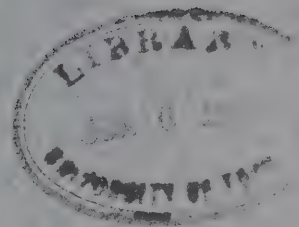
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DEPARTMENT OF  
TRADE AND COMMERCE



CANADA



**A FACT A DAY ABOUT CANADA**

**FROM THE**

**DOMINION BUREAU OF STATISTICS**

**MARCH 1938**

**FOURTH SERIES**

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Published by Authority of the HON. W.D. EULER, M.P.,  
Minister of Trade and Commerce.

Price 25 cents per annum



## Contents

- |                                    |   |
|------------------------------------|---|
| 152. Home Sweet Home.              | 167. Inventions in Canning Industry.        |
| 153. Crude Affairs at First.       | 168. Changes That Canning Has Developed.    |
| 154. Furnishing the Home.          | 169. Fish Sausages.                         |
| 155. Choice Furniture.             | 170. Growing Seeds in British Columbia.     |
| 156. Machine Age in Furniture.     | 171. Shedding the Fur Coat.                 |
| 157. Canadian Styles in Furniture. | 172. Fewer Fur Coats on City Men.           |
| 158. Indians as Coal Miners.       | 173. Pomp and Splendour -- No. 1.           |
| 159. Ivory.                        | 174. Pomp and Splendour -- No. 2.           |
| 160. Mosquitos.                    | 175. High Quality Fur.                      |
| 161. Births Declining -- No. 1.    | 176. Horses for the Old Land.               |
| 162. Births Declining -- No. 2.    | 177. Line Men.                              |
| 163. Births Declining -- No. 3.    | 178. March Birth Stone, Hematite.           |
| 164. Births Declining -- No. 4.    | 179. March Birth Stone, Aquamarine.         |
| 165. Canning Food.                 | 180. Bees from Dixieland.                   |
| 166. Cans and Housekeeping.        | 181. Plywood Market in the West of England. |
|                                    | 182. Mrs. Sulphur Gets Caught.              |

James Muir,  
Editor.

## A Fact a Day about Canada

from the

Dominion Bureau of Statistics

No. 152. Tues. Mar. 1, 1938 -- Home Sweet Home

It would be difficult to imagine a poet writing "Home Sweet Home" or "The Auld Hoose" unless that home contained comfortable furniture. There could hardly be very much affection for an abode in which there was no bed, only a stool or two to sit upon and a rough table. In those homes which poets and writers have immortalized there must have been coziness and comfort -- a restful place, some beauty about it, where one could sleep off one's tiredness. A living-room that appeals to our sense of what home is, will probably have its log fire, its sofa, deep easy chairs. It will not stir fond memories in the striplings who have departed to make homes of their own in far places, unless there has been that atmosphere of content that is created by solid comfort. Money alone will not make a home pleasant but there has to be enough, to make real enjoyment possible.

The love of home is easy to trace. In the days of migratory life, when families travelled from spot to spot as circumstances demanded, such as following the food supply or escaping from the enemy, it was not in the nature of things to try to furnish a home. Even if they had had furniture there was no covered wagon to transport it. A grandfather's chair would be an awkward thing to carry over the mountains and across the river fords on the broad of a man's back. A baby's crib could be a positive nuisance -- far easier to carry the infant papoose-fashion.

So these far away ancestors of ours did not bother about furniture. They slept on the ground, perhaps on some balsam boughs or a spread of meadow hay. They might have loved the place where once they camped but the tent or skin shelter went with them until it wore out and nothing remained at the beautiful spot save the litter that will collect around any dwelling. That, however, was hardly likely to be so bad as in our day when, with abandon, we strew tin cans and paper all over the summer cottage lot.

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No. 153. Wed. Mar. 2, 1938 -- Crude Affairs at First

When our ancestors gave up their migratory life and began to adopt a more centralized system of living, they built homes for shelter from the rigours of a cold climate. Until they had learnt how to saw wood or shape a stone, their habitations were very crude affairs. Turf huts were common -- not such well equipped turf-walled dwellings as may be seen in some parts of Canada even today, for they had no glass or plastic windows to allow the light of heaven to dispel the darkness. But they were getting somewhere.

With the nomadic character of much of primitive society well behind them, people arrived at the period of centralized living. They began to live in communities. Beds, tables and chairs came into vogue. A good bed is more comfortable than a bag of skins on the hard ground. It is easier to feed out of a bowl placed on a table than it is to dip into a big iron pot of stew or to hack a chunk of meat off an ox roasted whole. A chair was handier than squatting upon the damp earthen or stone floor.



It is not difficult to visualize the rapid progress that was made as soon as the good folk decided to end their wanderings. A pillow that was good enough for Jacob, and which now reposes in Westminster Abbey, soon became too hard for a man's head, although it wasn't so bad for the earlier fellows with their uncut growth of hair as for us roundheads, their descendants.

It was community life in the beginning, of course. Gathered together they were less liable to attack by their enemies in the shape of man or beast. Individual homes came later.

That was the point at which real furniture stepped in. The individual home was the outcome of a settled and relatively peaceful life. Once you build a home, you have a place wherein to keep things. It follows that you fashion a real bed and a big chair whereon to sprawl. Then arose the sacred tradition of hearth and home.

The earliest deities that were represented in stone were not given seats to sit upon, but later on we find gods and their worshippers equipped with chairs or seats on which they could rest easily and relax. Comfort had entered into the picture.

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No. 154. Thurs. Mar. 3, 1938 - Furnishing the Home

We can jump a few thousands of years and glance at the homes of the Greeks. Although the nature of the Greek climate is such that no actual examples of Greek furniture are extant, we have countless illustrations in vase paintings and sculpture. Headmen in council or at the games sat occasionally on thrones while subordinates occupied benches or stools. Figures are shown reclining on beds or couches, eating from small three-legged tables which could be removed or slipped beneath the couch. Sometimes these wooden couches had turned legs identical in pattern with earlier Egyptian examples. Except for the beautiful reclining chair, the Greeks owe all their furniture forms to the Egyptians. But the Greeks invested their borrowed patterns with that genius which made their architecture the sublime achievement of antique art.

The Greek was still the soldier and he had about him in his home only what he could use. However, he had his utilitarian forms exquisitely moulded and decorated. He was luxurious in his tastes and he enjoyed soft mattresses, beautiful dressings on the beds, dyed and embroidered silk and woollen covers. The Greeks were true artists.

When the provincial Romans became world conquerors, possessing a genius for power and organization, they seized upon Greek perfection but they lost the magic. A land-owning and commercial aristocracy, living in palatial homes, added luxury in the form of bronze, gold, ivory, rare veneers, marble and precious stones. Furniture went beyond the functional use and became purely decorative and ostentatious.

In Byzantium the survival of Greek culture continued to influence furniture until the fall of Constantinople in the 1400's.

After the barbarian invasions of Western Europe, the late Roman forms were continued but they were uglier. The Teutonic peoples practised the making of furniture as a craft, but it varied little from the late Roman style. Except in

the churches and monasteries the great age of Gothic architecture did not influence furniture design very much.

This sounds a good deal like an essay on furniture, but there is a purpose in setting out the story as you will shortly see, if you will exercise a little patience.

The wild and primitive people of Scandinavia carved their solid wood furniture with dragons, scenes of battle, piracy and hunting for treasure.

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No. 155. Fri. Mar. 4, 1938 -- Choice Furniture

Throughout the Middle Ages, Paris was the renowned centre of the furniture industry. Skilled artisans made seats, couches, tables and chests which dazzled the eye. Extraordinary sums were spent by the newly rich for show.

The commercial revolution of the 15th to the 17th centuries, the rise of the rich Flemish and Burgundian cities and the dawning culture of the Renaissance brought to the homes of the wealthy merchants a new elegance which superseded the heavy furniture of the Middle Ages. The pomp of court life demanded decorative art, and a fresh impetus was given to furniture design.

A new structural technique, in other words the Gothic principle of holding thin panels between rails and stiles was translated into wood. The Italians produced masterpieces; their decorative artists were at the peak of their glory.

And now we come closer to our own day. The decline of the aristocracy, the broadening of the middle class, the higher standard of living, all increased the demand for furniture. The home became the social ideal, sentiment grew around it, furniture which was once only possible in the palace and the mansion became available to the many. The poet saw the change and Home Sweet Home was sung.

Throughout a large part of last century, the average man still depended upon his own skill in the making of furniture for his home and on the ordinary house carpenter. There were some joiners, latterly known as cabinet makers, who did very skilful work, but it required real money to secure their services. It was an art that was much esteemed. The village carpenter was in a very real sense the home builder. His shop, with its sweet scent of clean wood had a halo round it, for was not Jesus of Nazareth himself a village carpenter? He had entered into communion with the daily life of men, with the most intimate and sacred life -- the home life.

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No. 156. Sat. Mar. 5, 1938 -- Machine Age in Furniture

Furniture making soon entered the machine age. It emerged gradually from a handicraft to an industry. Power saws and wood turning and planing machines were gradually introduced. The highly skilled machine craftsman appeared. About the middle of last century the furniture factory was highly developed.

Thus there has grown up in Canada a highly organized industry which is meeting the needs of the people well. The market is chiefly domestic. The industry is centred in south-western Ontario. There are 425 factories in the Dominion and more than half of them are in Ontario. Quebec and British Columbia follow in that



order. There are about ten thousand persons employed. It is estimated that the people of Canada spend considerably over 50 million dollars a year in purchasing furniture which has been manufactured in their own country. That makes between four and five dollars per capita per annum.

Generally speaking, our furniture is characteristic of the people who purchase it, for the variety in style is very great. Some homes are furnished for comfort, others to please the eye. We have the ornate and highly decorated pieces of furniture bought with lavish expenditure. On the other hand there are the examples of plain yet good looking and substantial furniture that is usually regarded as excellent taste. It may be said that the choice and condition of the furniture in a dwelling usually reflects the philosophy of the dwellers.

Like everything else we have ~~fashions~~ in furnishing, but old chairs, like old friends, have an increased attraction for us as the years pass and providing also that we can keep the squeak out of the joints.

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No. 157. Sun. Mar. 6, 1938 --- Canadian Styles in Furniture

Canadian styles in furniture for a long time reflected the racial origin of the colonists, although some articles --- such as the high-boy chest and the low-boy dressing table --- are considered typical of colonial design. They came up to us from the New England States with the United Empire Loyalists.

We cannot, therefore, be said to have any distinctly national characteristic about furniture, but in the main, as is to be expected from a vigorous people who work hard, the idea of comfort prevails. That is fairly well established by the fact that in the total sales of furniture, much more is spent on articles for the living room than for any other part of the house. Sales of bedroom furniture come next and for the dining room third. The fireplace is usually in the living room and the higher standard of living makes it less necessary to sit of an evening in the kitchen with feet perched on the open door of the cooking range, when the winter months are upon us.

We have mentioned comfort a few times. There must be plenty of people around who were brought up in homes where the cushioned seats and sofas were covered with horsehair cloth. It lasted a long time --- too long for comfort --- for those were the days when the parlour was a place that was reserved for visitors and special occasions. One of these events was the visit of the Minister to see if the youngsters had memorized the Shorter Catechism and the 14th Chapter of St. John. It was an art to keep demurely seated upon the precarious surface. The real living room then was the kitchen where grandfather's chair and grandmother's rocker were established.

The horsehair sofas and chairs were made all the more troublesome and hateful because of the tidies and antimacassars that were spread over them to make the show-room more beautiful and preserve the seats from wearing out too soon. When they began to wear, the prickly surface was an abomination, but to the very small children they were pure joy as they pulled the long coarse hair from the cloth and made it curl and uncurl into all kinds of shapes.

It is noticeable that the antimacassar has almost entirely disappeared. It had a utilitarian purpose. Men used to wear their hair much longer than they do now, and they oiled it to keep it in place. Macassar oil was the favourite, so

the anti-macassar was invented to keep the cushions clean. Nowadays men wear their hair short and the oils help to make permanents for the ladies.

The deep sailors' collar is a reminder of the same thing. Its use was to keep the oily hair from dirtying the coat. The two ribbons which hang down from the collar of the Welsh Guards carry us back to the same utility --- protection against oily hair.

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No. 158, Mon. Mar. 7, 1938 -- Indians as Coal Miners

It is in our minds when we interest ourselves in the advancement of Indians to a position of independence and self-support, that the great outdoors is their sphere. Under the efforts of the Department of Mines & Resources, however, a coal mine has been established on the Blackfoot Reserve near Gleichen in Southern Alberta.

Operations at the Reserve Mine began in 1931 and by October of that year the demand for coal, which is sold at the mine head, was so great that it was necessary to establish an office and commence the erection of houses and other buildings for the workers. The only white man employed is a qualified miner who supervises the mine operations. Under his direction some fifty Indian miners are employed and they are paid \$1.50 per ton for all coal mined and delivered to the mine head. A very capable Indian is in the office in charge of the books, weighing and selling coal, and other routine business.

Sanitary men, the dairyman, drivers, engineers, tippie men and slack haulers are all Indians, and they are paid at the rate of 30 cents per hour. The mine is self-supporting and provides an average payroll of about \$500 per week. Production in the last fiscal year amounted to 10,000 tons of coal, and after five years' operation the debts classed as bad on the books would not total \$50.

The Reserve Mine provides steady employment and is run on a co-operative basis. A representative body of Indian miners and members of the Blackfoot band council meet with the Indian Agent, stationed at Gleichen, when agreements are made as to prices, wages and general development. The mine owns between 30 and 40 houses; a wash house provided with showers and wash tubs with hot water service; a dairy which provides milk from tested cattle at low cost; a barn for the mine ponies and cows; a blacksmith shop, and a dressing station and drug dispensary. In Indian woman runs a restaurant, which caters not only to the single Indian miners but also to a discriminating white clientele. A large tent with a floor for dancing provides the entertainment centre, while the spiritual needs of this happy Indian Village are cared for by two churches.

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No. 159, Tues. Mar. 8, 1938 -- Ivory

Ivory is one for the glamorous articles of trade that remain to us in this more prosaic industrial age. Africa is now the chief source of supply. From Zanzibar and Mombasa, trading centres for the Kenya Colony and Uganda and Mozambique, regular shipments are made. Supplies are also obtained in the Sudan and central and west coast regions, chiefly the Congo, Cameroun and Nigeria. Russia ships annually some mammoth tusks unearthed in Siberia, of an age estimated from one thousand to fifty thousand years. A small supply is got in Siam from elephants that have died of old age.



At one time all the ivory was found dead in the African jungle. Native expeditions collected it in the "cemeteries" where elephants went to die. It is estimated that now about 50 per cent of the animals are shot, although the slaughtering is strictly controlled.

In Biblical times ivory was classed with gold and silver. Solomon's throne was made of ivory, overlaid with gold. Ivory is also got from the hippopotamus, wild boar, sperm whale and walrus. There are thousands of uses for it.

The supply does not seem to diminish. Sales are held quarterly in London and usually the quantity put on the market varies from 15 to 30 tons. The soft ivory yields about one thousand dollars per hundredweight. Not much unmanufactured ivory is imported direct by Canada, only a few hundred pounds in a year.

No. 160. Wed. Mar. 9, 1938 --- Mosquitoes

An inquiry comes from a young lady in Saskatchewan about mosquitoes. She wants to know if it is possible to produce any figures of any kind regarding these pests.

The only figures the Bureau has seen is an estimate of the loss in dairy production occasioned by mosquitoes, which should alone be sufficient to stir up energy enough to combat the plague, for they are really a plague in some seasons and in some places.

According to the Dominion Entomologist, the slender, delicately built insects known as mosquitoes are among the worst blood-sucking flies which attack man and animals in many parts of Canada. Frequently harmless midges, small crane flies and similar insects are confused with mosquitoes, but the latter can always be recognized by the long, slender beak, or proboscis, and the presence of tiny scales on the veins and margins of the wings. Not only are mosquitoes a source of great annoyance to humans, but they also occasion much loss by worrying live stock. In some of the worst affected districts a marked drop in milk production is noted in dairy cows at the commencement of the mosquito season. Practical dairymen have stated that this may be as much as 40 per cent. Other classes of animals lose flesh through loss of blood and worry, and, in extreme cases death may result, especially among young animals. Even poultry and other birds are affected by these insects.

The females of most of the sixty or more species of mosquitoes that are found in Canada are bloodsuckers, and while they vary considerably in their life-histories and habits, all of them require more or less stagnant water for the immature stages (larvae and pupae) to develop. It is quite impossible for them to develop in damp grass or in dew on vegetation, although this is a commonly-held belief. The fact that the larvae and pupae develop only in water, and that although they are aquatic, they must frequently come to the water surface for air, makes it possible to destroy them in vast numbers before they have a chance to emerge. This is done by spraying pools and flooded areas with petroleum oil, such as fuel oil, in spring and early summer.

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No. 161. Thurs. Mar. 10, 1938 --- Births Declining - 1

For some years the population of Canada has been growing very slowly. The increase since 1931 is only about 700,000 or less than 7 per cent. That compares unfavourably with the rapid advance at the beginning of the century when from 1901

to 1911 there was a 34 per cent increase. Not all of those who came in the first decade stayed in Canada.

However, there is time yet before the next Census of 1941 to experience a great change and present indications are that such a change is taking place.

Of the two leading factors in population growth, births and immigration, the greater of these is births. Both have fallen off appreciably since the depression struck the country. In 1935, only 11,000 new citizens came to Canada. That was a smaller number than in any other year since 1860. In the early 80's there were over a 100,000 in some years. In the middle of the first decade of this century there were over 200,000, while in 1913 there were over 400,000.

Looking over the immigration statistics, a striking and similar experience is observed. It is that after periods of prosperity, whether here or abroad, the newcomers rush to Canada in great numbers and, when adversity is upon us and the rest of the world, the immigration drops off. In 1929, after conditions had been excellent for several years, 165,000 came to Canada to live, but in the fall of that year the industrial crisis came, with the result that by 1931 the immigration had declined to 27,000.

Better times have arrived and last year there was a slight advance in the immigration over 1935. This year, so far, that slight advance has been maintained. True, it isn't much but it's a sign of the times and an example of history repeating itself.

Keeping in mind that large population increase follows periods of prosperity in new countries such as Canada we find it exemplified very noticeably in the Western Provinces. The increase between 1921 and 1926 was small, following the depression after the War, but between 1926 and 1931, when times were exceptionally good, the increase was very large. Alberta's increase between 1921 and 1926 was hardly worth mentioning, while Saskatchewan, between 1931 and 1936 moved up only about 9,000.

The slow growth in Canada's population in recent years is due moreover to the decline in the number of births. Rapidly declining birth rates have been characteristic of English-speaking countries and most countries of western Europe during the post war period. England has been worrying over it. Canada has been no exception to the rule.

In the years 1920, 1921 and 1922 the number of live births in Canada exceeded 250,000. In the year 1936, in spite of the increase in the population in the meantime, the number was only about 220,000. The Canadian birthrate which was nearly 30 per thousand of the population in 1921 had fallen to 20 per thousand in 1936.

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No. 162. Fri. Mar. 11, 1938 — Births Declining — 2

In recent years the economic depression quite naturally produced an adverse effect on the number of marriages and therefore on the number of births which had been tending to stabilize itself and was even showing some signs of an upward movement before the depression produced its effect. Not very many young men feel that they can undertake the responsibility of making a home when they are out of a job. Marriages, which totalled over 77,000 in 1929 had fallen to fewer than



63,000 in 1932 and it might fairly be estimated that the end of the year 1934 saw nearly 50,000 persons of each sex unmarried who would have been married if the rate of 1929 had continued.

But not all of the decline in births in recent years can be attributed to a lessened number of marriages, and it is important to note that although marriages have been tending to recovery, year by year, since 1933, and although the number of marriages in 1936 exceeded that of pre-depression years, there has been as yet no upward movement in the number of births.

The decline of births during the depression was in part, but by no means wholly counterbalanced by a fall in the number of deaths, and the natural increase in 1936 was only about 113,000, the lowest figure during the post-war period.

But a more disturbing situation has been the extension of rural depopulation, and it has affected the birth rate very noticeably.

Women are tremendously responsible for rural depopulation. It is in the country that we expect the greater number of marriages, but our rural young women have not been staying at home. They have been flocking to the cities. Young girls preferred to leave the farm and take jobs in the urban centres. The bright lights seemed to have a greater attraction, but there was also the fact that the country offered women fewer opportunities for employment. They departed for the cities and did not go back except for brief visits, and the young men were left alone. There were no young women with whom to mate. That is why there are so many bachelors in the rural districts to-day.

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No. 163. Sat. Mar. 12, 1938 -- Births Declining -- 3

It is possible, that in this connection the depression, through which we have just passed, may have had a good result. There were very few jobs available for young women when they arrived in the cities to look for work and they were compelled in most cases to remain at home. The young men and the young women have been growing to marriageable ages together. The girls who have been going to the cities are usually between the ages of 17 and 22 and it stands to reason that, if they remain in the country during that period they are likely to begin to think that married life is not so bad after all. The girls may then decide to let the clergyman give the bridal instructions to the men of their choice.

That this has been taking place to quite a large extent, all the evidence shows, and the thought occurs that it may assist in solving many problems, among them the competition of females in occupations, allowing the young men to fill vacant positions and thereby leading them to the altar of marriage.

But taking things as they are just now, there is one startling fact that creates almost consternation. If every bachelor in Canada between the ages of 20 and 35 were to make up his mind to marry, but insisted that he would not enter the wedded state unless the young lady happened to be a Canadian or a resident of Canada, and providing also that all the young ladies of Canada between these same ages were willing, there would not be enough brides to go around.

These bachelors who found themselves left would have to cross the border to find a wife or board a ship for some other country beyond the seas.

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No. 164. Sun. Mar. 13, 1938 --- Births Declining - 4

The fact is that there are about 250,000 more bachelors between the ages of 20 and 35 than there are unwedded women of the same ages, which goes to show that the Canadian girl, if she wants to marry, has an infinitely better chance of finding a husband than the bachelor has of getting a wife. Thus it seems quite evident that there are many Canadian women who prefer to remain unattached like Queen Elizabeth in the days long ago. They may want homes of their own, but not with a man hanging around.

The majority of the unmarried females are in the cities and the majority of the bachelors are in the country places.

The records show that the single woman, when she decides to leave the countryside, makes for a big city, but the single man is quite content to live in one of the smaller towns. It may be that there is just as great a variety of employment for him in the smaller towns as in the cities while for her the big cities offer more chances of getting the kind of employment that suits her. There are greater opportunities in the cities for domestic service, stenography, clerical work and the many other more or less feminine occupations.

Whatever the reason, the fact is that there is a great army of one quarter of a million more bachelors in Canada between the ages of 20 and 35 than there are spinsters between these same ages.

No. 165. Mon. Mar. 14, 1938 --- Canning Food

Canned food is by no means a late date invention. When and where the first tin cans were used are facts lost in the ages, but we do know that the early Romans coated copper vessels with tin to make them suitable as containers for food and drink. These were the ancestors of the present day tin cans, which have influenced the economic and social life of the country. We know also that half a century before Christ, armoured legions of Rome were landed on the shores of Britain to secure tin from the mines of Cornwall, which were first worked by the Phoenicians of Tyre and Sidon. It is established in the writings of Pliny that the art of coating cast, or wrought iron with tin was known before the year 25 A.D.

Cornwall has lost its leadership in the production of tin, for to-day there are tin mines of Bolivia and British Malaya, whence comes the chief Canadian supply. No tin has been found in Canada, which is curious, since we have within our borders almost every other known metal.

There was a tin plate industry established in Bohemia after the discovery of the metal in that country in the 1200's, but it was in England that the manufacture of thin iron sheets, by rolling, was perfected and the success of the industry assured. Steel is now the base.

A Parisian named Appert was the first man to can food. He carried out his experiments with glass jars, which he sealed and immersed in boiling water. The French Government had offered a prize of 12,000 francs for the discovery of a process of preserving food for the soldiers and sailors of France. Napoleon was so grateful that he awarded the prize to Appert in person.



After that an Englishman, Peter Durand, invented the tin can and it took the place largely of the glass jar so easily broken.

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No. 166. Tues. Mar. 15, 1938 - Cans and Housekeeping

Hark back to the kitchen cupboard with its splendid variety of canned goods -- from coffee to spinach. There may be everything you require for breakfast, luncheon or dinner and a snack in between. Compare it with the cupboard typical of the days before the present century came in. Almost the only canned food on the shelf was salmon with its gaudy paper wrapper glued to the tin. Now and again when the picnic season was due there might be condensed milk, in which the Swiss were doing a thriving trade.

These were the days when the ladies of the household were very busy with purely domestic concerns, and cupboards were huge affairs. Much food had to be prepared for hungry mortals. Coffee had to be roasted and ground, salt cellars and pepper boxes had to be filled, mustard to be moistened. Potatoes, turnips, carrots and other accompaniments of the meat portion at dinner had to be peeled or scraped. The household implements were solid and heavy, the forks and knives had to be polished after every meal, and the work went on from early morning until late in the evening.

Nowadays, there is actually no need to do any one of these things. Meals come to us already prepared. A lady may spend an afternoon visiting friends and arrive home fifteen minutes before the dinner hour. In these few minutes she can put on the table delicious canned soup, a course of canned fish, a canned boiled dinner and canned fruit for dessert. If the housewife is so minded, she need not do much more preparation for a meal during the day than toast a slice of bread, fry a rasher of bacon, boil an egg or brew a pot of tea. Housekeeping has been simplified with a vengeance.

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No. 167. Wed. Mar. 16, 1938 - Inventions in Canning Industry

We used to have a good deal of fear about these canned goods. We were warned about the danger of poison. The old tin of salmon was opened gingerly with a weird implement that slithered and slipped and left a nasty opening which cut the unwary finger. The food had to be removed forthwith because we had been taught that the fish spoiled quickly the moment the air got at it; delay meant poisoning.

That fear is all gone. Canned food is safe. There is said to be no danger now of leaving food in a tin can which has been opened and placed in the refrigerator just like any other food. Many of these cans have lids which can be replaced.

The principle underlying the success of food canning is heat. Heat destroys the bacteria, the secrets of which Louis Pasteur revealed to the world. The destruction of the bacteria makes possible the preservation of the food.

The Canadian people use much canned corn. Canned peas are everywhere. They are such a favourite dish that it is worth while digging up from our memory the fact that two young Canadians made the first beginnings which made the pea canning industry a success.

During the last century John Chisholm and his brother, two young farmers who lived near Oakville, Ontario, had been working on a machine for shelling peas. It was a clumsy affair and had not been a success. The delicate peas were bruised and broken in the process.

The two young men had decided to give up their efforts and John, before leaving the barn, picked up disgustedly some of the pea pods. With a butter paddle in his hand he hit them much as you hit a ping-pong ball, or a tennis ball.

His brother examined the peas scattered round the floor of the barn. Every pod was empty and not a pea was bruised. That gave them the required inspiration. Their elaborate machinery had been rough with the peas. What they required was a light sharp impact such as Chisholm had given the pod with the butter paddle.

The two Chisholms went to work again on their invention, and they were joined by another inventor, Robert Scott, who had been working on a machine for picking the peas off the vines. Within a few months these three clever young men had built a wonderful machine, the pea viner, that picked the peas off the vines, shelled and graded them, all in one operation. It is an attractive story of Canadian enterprise. Chisholm also developed a corn husker from a clothes wringer through which he ran the corn. These inventions paved the way for the canning of peas and corn on a large scale.

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#### No. 168. Thurs. Mar. 17, 1938 . . . Changes that Canning has Developed

The development of the canned foods industry has effected great changes in the relation of foods to seasons. Fruits and vegetables of many kinds are to be had at all times of the year, not always with all the flavour of the freshly gathered products, but with much of their original freshness and flavour.

A striking illustration is the canning of tomatoes. About 90 million pounds have been canned in one year. Then we have tomato juice running up to over twenty million pounds and millions more of canned paste, puree and pulp. More tomato goes into cans in Canada than any other vegetable or fruit. Canned peas come next in quantity. Amongst the fruits, pears lead in quantity and usually in value also but in some years peaches will overtop the pears from a money point of view. Mention was made of canned soups a little while ago. In some years the quantity of canned soup is greater than all canned fruits combined.

There is one general favourite amongst desserts in Canada. It is so well liked that some people eat it for breakfast. That is pie --- apple pie in particular. The ingredients for a delicious pie may be purchased in cans. Not many people, comparatively speaking, make pumpkin nowadays for the pie of that name. Very often they buy it prepared and in cans. Mincemeat the same.

The most important branch of the industry is the canning of fruits and vegetables, which is carried on most extensively in Ontario and Quebec, where the climatic conditions for the growing of these crops are favourable. The canning season begins in June and continues throughout the summer and autumn until October, being at its height in July, August and September. That makes employment vary. Fewer than three thousand persons are employed in March, yet in the busy months there are seventeen or eighteen thousand.

Besides the fruits with which we are all familiar, we have loganberries and apricots in British Columbia.



Canned fruits and vegetables in Canada have a money value greater than all other canned foods combined. Canned fish rates next. Salmon leads the way amongst the varieties of fish and is more than twice all others combined. Practically all of the canned salmon comes from British Columbia, with a small quantity from Quebec and other provinces.

Chicken can now be bought in a can, fitted to its nicely browned curves, thus saving the blushing bride from the jokes about amateur cooking. Even the prospect of raising young children has been made simpler by prepared foods. This item is gaining rapidly in popularity as the figures for the last two years available show a doubled production of prepared food for infants.

In fact the production of concentrated milk products was double that of canned soups. The total production value of the canned food industry in 1935 amounted to 45 million dollars, an increase of nearly 3 million dollars over the year before.

Tomato juice, which is more frequently found in the bars than in the dining-rooms of hotels in England is another product that is gaining in popularity. The flavour of the Canadian tomato is well liked and the extra juice in the tins of canned tomatoes is very popular in the North of England, especially among the miners.

It is impossible to say exactly how many tin cans are made in Canada in a year, but a good guess might be 60 million of all kinds. In the United States 600 million is said to be the number.

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No. 169. Fri. March 13, 1938 . . Fish Sausages

The Canadian Trade Commissioner in Germany forwards the following paragraph regarding conditions in that country in 1937.

"There has been no abatement in the execution of the "Four-year Plan", which is now the dominating factor of Germany's economic life and which aims at making the country independent of foreign supplies of materials. Official utterances imply that the only limit to its objectives is that set by labour, capital and equipment. In furtherance of this program the variety of consumers' goods manufactured wholly or in part from synthetic raw materials has become increasingly great, but not without sacrifices as regards quality and, in most instances, at comparatively high cost."

Necessity has surely mothered invention in Germany and fostered the idea of substitution. For example, the poor grain crop was offset by a large potato and root crop which helped to make good the cereal deficiency. Coal is being used as raw material for synthetic rubber and gasoline and it is to replace imported oils and fats in soap making. Imported oils are to be supplanted by whale oil also.

For some reason or other we associate sausages as a German dish and it is interesting to note that they are now being made from fish rather than flesh. Efforts are being made to make this substitution popular because there is a tendency towards shortage of meat. Whether this is succeeding or not we do not know, but there has been a decrease in our shipments of sausage casings to that country. In 1936 the export was \$84,000 and in 1937 it was \$60,000, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 170. Sat. Mar. 19, 1938 --- Growing Seeds in British Columbia

The growth of industry of seed-growing in British Columbia has been slow but healthy, and expansion can be anticipated, says the Dominion Department of Agriculture. It emphasizes that with a wide range of soil types and climatic conditions in the Pacific Province, it is possible to produce any, or all, of the common vegetable seed crops, and, although promotion of the industry has never been undertaken in a general way, a opportunity is offered to the careful farmer.

Seed-growing is a specialized line of crop production. Half hearted attention never yields results, we are told. Care must be exercised at every turn. Many of the crops concerned are biennials, and must be stored over winter, producing seed the following year.

However, the authorities state very positively that it is not the intention to promote vegetable seed growing to the stage of over-production. Marketing is still the chief problem concerned, and producers are advised that it is well to have an outlet before venturing into this line of farming.

Yet the conditions seem to warrant the view that, as time rolls on, British Columbia will become a great seed-growing province. Imported vegetable seeds constitute by far the largest volume of seed offered the trade in Canada. While in many cases it may not be possible to produce seed in competition with imported stock, many other lines may, however, be grown profitably in British Columbia.

According to the External Trade Branch of the Dominion Bureau of Statistics, the Dominion imported seeds for planting in the fiscal year 1937 to the value of \$2,442,000. These seeds came from 31 countries, the largest amount from Argentina. Other large supplying countries were the United Kingdom, United States, New Zealand, Netherlands, Germany, Hungary and Denmark. The seed we exported amounted to \$4,345,000 which was far in advance of other years. In 1936 it was \$681,000. The chief purchaser was the United States, followed by the United Kingdom, Cuba, Argentina and Russia.

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No. 171. Sun. March 20, 1938 --- Shedding the Fur Coat

The sun is shining brighter in the heavens, the days are becoming warmer in most parts of Canada, newspapers are carrying stories about the early birds and we are all talking about spring. It will be here in a jiffy. Whether it will be a late spring or an early one it is our privilege to discuss, but the 21st day of March is the first day of spring, being the vernal equinox, and we can't get away from that.

In no time at all we are going to throw off that winter coat that has been bearing us down for months under its great weight. We are going to open ourselves up to the balmy breezes and forget for a while that just a few weeks back there were icy blasts that threatened to freeze our chins and our ears. We could hear men saying to one another that the only sensible fellows were those who let their beards grow. We respected the common sense of the prospector and the lumber jack who rode into town, the latter with a roll in his hip pocket and a fine crop of hair upon his face. We congratulated him. Next day we met him and didn't recognize him, for the whiskers were gone and maybe, but just maybe, the roll had gone too.



However, he was, although perhaps unconsciously, illustrating the fundamental truth that, for the most part, conditions govern us and establish usages. That man would be nothing short of a fool who, with the bitter winds of the North biting into him, did not make use of the protection that Nature had provided. In town it is different. Most townsmen have been clean shaven for quite a while now. The old moustache cup is featured no more in the china merchant's window. The young blood, up to the end of the last century, had his tea served in a cup which kept his moustache under control --- but today he keeps his cheeks as smooth as a young girl's.

There is some connection, or at least association of ideas, between the whiskers and the fur coat. Men who spend much of their time in the open air of our northern climate have need of fur to keep them warm in winter. They have to armour themselves for battle with the cold, very much like the wild beasts. Man, alone among the animals, is born without a coat of his own. The monkey, which some people claim is a long-lost brother, has been more favoured; the gorilla has a good serviceable coat.

Man, therefore, has to provide himself with suitable clothing to cover his nakedness. It is a bother and an expense. Yet it has its advantages. Man and woman can adorn themselves in many fashions. The lady can acquire a spring hat and go sailing proudly under it to church when the bells ring out their invitation to worship. We are away ahead of the other animals from that point of view. The zebra, arrayed like a convict, cannot change his stripes.

#### No. 172. Mon. Mar. 21, 1938 --- Fewer Fur Coats on the City Men

Just as the townsmen are discarding the coverings from their chins, so they are getting away from their fur coats. Every man, big and small, rich and poor, used to own a fur coat. The favourite seemed to be the coon, but jaunty fellows went one better. A former member of parliament who later became clerk of the House of Commons, used to disport a coat made of Persian lamb. It must have cost a pretty penny. Persian lamb was rarely worn by men, but it was a warm favourite with the ladies. It spurns attempts to successfully imitate it and, no doubt, not many furriers would like the task of making the fur of a rabbit or a muskrat look and feel like Persian lamb.

It was a goodly sight years ago to see Sir Wilfrid Laurier and the Hon. L.P. Brodeur, two very tall and handsome men, march together along the sidewalk from Parliament Hill in winter. They were dressed in long fur-lined coats, with mink collars and mink caps. Nowadays, prime ministers and other dignitaries are rarely to be seen in a fur coat. They are less exposed to the weather. Instead of an open sleigh they ride in a closed and heated automobile.

The ladies do not seem to wear their fur coats so early in the fall or so late in the spring as they did in the first decade of the century. Even in winter, a great many of them are sticking to the same sort of tweed or woollen coats that men affect, and which used to be considered a spring and fall outfit.

The entry of a great personage to a skating rink to see a hockey match has become less spectacular. The furs are not there. When the Countess of Minto, accompanied by her train of daughters and other ladies, made her way into the old Dey's arena, where a historic game was to be played, their appearance was impressive. Lady Minto herself wore a long coat of mink that hung to her ankles, and, along

with the fact that she was a very beautiful lady, who was as interested in and excited about the game as any fan could be, it gave her distinction.

Even though Canadian men do not wear fur so much as they did, almost everyone possesses some. The modern Canadian of the city may wear his fur cap but seldom and his fur coat less but they are around somewhere. That possession causes us to reflect upon our growing democracy. Once upon a time furs were luxuries. The outstanding people of ancient empires wore furs to indicate their wealth and importance. Kings and princes still wear furs upon great occasions, even when the weather is hot. The Coronation of King George sent fur prices soaring upwards.

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No. 173. Tues. Mar. 22, 1938 --- Pomp and Splendour --- 1

Before furs became associated with pomp and splendour, people wore skins for warmth and comfort. Read the Book of Genesis and you will find that Adam and Eve wore skins at the behest of the Creator. When people dwelt in tents of skins they kept the fur on the inside for the sake of heat, just as did the Russian scientists who have been floating so long on an ice floe in the Arctic Sea trying to get to Greenland. How could the Eskimos have endured their climate if they had not had skins to cover their bodies?

Pride, pomp and splendour which demand fur to make people more impressive drive them to great extremes. In our own land, when July suns are burning the grass yellow, it is not uncommon to see a lady wearing around her neck a large fox fur. She simply can't bring herself to discard the treasure during the all too few summer months.

As a people we owe much to fur. It was pelts for the courts of Europe that sent pioneers and colonists to Canada. The first currency we had was beaver skins. We made beaver hats famous. Later on, when depredations on beaver brought the industrious little animals near to extinction, we had to protect them.

Alas, we were not in time to protect the sea otter, which has the finest fur of all animals. It was the sea otter that brought the Russians to Alaska. That beautiful animal is very near total extinction.

The fur industry has changed very little during the ages. The furrier works just as his ancestor worked, matching skins and piecing them together. Styles of coats change but the manufacturer still works by hand.

It is different with processing, however. A new technique has been introduced into the fur industry. The Hudson Seal provides the best illustration, for it has become extremely popular with Canadian women. There is no such animal. Hudson Seal is simply dyed muskrat.

Other marvellous things have been done in processing fur. Rabbit skins have been transformed as by magic into electric seal, imitation beaver, squirrel and even ermine. The art of the fur dyer is a very recent development. The discovery of aniline dyes less than a century ago helped greatly. Today light skins can be dyed darker and dark fur lighter. The tanning solution is kept a closely guarded secret. Almost any colour can be made, according to fancy. Look at the coat of "leopard skins" and wonder.

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No. 174. Wed. Mar. 23, 1938 --- Pomp & Splendour - 2

That is travelling far beyond what was in the minds of those gentlemen who formed the Hudson's Bay Company, which is the oldest fur trading corporation in the world. Its beginning held a romance which appeals to us strongly because it started as a co-operative plan between the French and the British. The story is not as well known as it should be. In the year 1668 two French adventurers, named Radisson and Chouart de Groseilliers, after being repulsed in Paris, succeeded in interesting a few English noblemen and merchants to the extent of outfitting two vessels to proceed to Hudson Bay. The vessels were the Eaglet with Radisson aboard, and the Nonsuch with Groseilliers. The Eaglet turned back after reaching Hudson Strait but the Nonsuch carried on and reached the mouth of Rupert River in James Bay. There they built a fort and began trading with the Indians. In the following summer they returned to England laden with furs. Next year, 1670, the Governor and Company of Adventurers of England trading into Hudson's Bay was incorporated. Prince Rupert was the first governor.

Thus it was left to the British, the greatest sailors of all time, to tap the trade of Central Canada by a sea route through Hudson Bay, while the French, who had settled in Eastern Canada, carried on trade to the westward, mainly by means of expeditions along the Great Waterways.

This trade and the public sales which were held in London had the effect of focussing attention on the English capital as a fur centre and were instrumental in leading London to become the principal world market for raw furs, a position which it has held down to this day.

It is no conjecture to say that the general influence of the fur trade on the whole did much to develop this country from its earliest days. In the main it was a good influence. The confidence and esteem of the Indians was won by treatment that was fair and just. Without an army or even any police system and with but a few scattered forts, a great territory was conquered by peaceful means. With the exception of a few minor outbreaks during that long period, peace existed. It provides us with an illustration of what trading at its best should be. It should be a friendly, co-operative thing. It must be so, to be successful.

But the trade did more than that. It gave to Canada many men who have played a strong part in the making of the Dominion. These include descendants of the ancient inhabitants of the country, who have risen to eminence and power in Canada.

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No. 175. Thurs. Mar. 24, 1938 --- High Quality Fur

A century ago the value of Canada's export trade in furs exceeded that of any other product. This has, of course, been greatly changed, yet the export of Canadian furs still occupies an important place in our economic affairs. In recent years the value of that trade has run between 15 and 21 million dollars.

The chief item of production is the silver fox, with a production of close to 200,000 pelts. They come almost entirely from the fur farms. Farming now plays an important part in the fur trade of Canada and the value of pelts of ranch-bred animals represents approximately 40 per cent of the total value of the raw fur production of the Dominion. For many years fur farming was concerned almost entirely with the silver fox but during the past few years much success has been attained

in the raising of mink. Other kinds of fur-bearers are also found on the farms -- red, cross and blue fox, raccoon, skunk, marten, fisher, fitch -- but their numbers are small compared with silver fox and mink.

Next to the silver fox in value is the humble muskrat. More than one and a half million pelts are taken in a year, or twice the number of rabbits. Comparatively speaking the average value of a rabbit pelt is only about 12 cents. The most expensive of all is the pelt of the fisher which brings about \$51, followed by the silver fox at \$33. The skin of a black or brown bear brings less than \$2, the grizzly \$7 and the white bear \$14. A fancy price has to be paid for a sea otter when one is available.

The fact that ermine is much used by royalty and other high titled folk suggests that it is expensive, but an ermine or weasel pelt fetches less than one dollar. The fur of the domestic cat averages 16 cents and the wildcat \$6. The pelts of the coon coat which is to be put away until next winter are worth about \$4 each.

The high quality of Canadian fur is acknowledged everywhere. A European possessing a fur coat will boast that the fur came from Canada. About forty years ago, the Master of Elibank, after a visit to Canada during which he acquired a beautiful fur lined coat, displayed it proudly everywhere he went and gave a certain filip to the trade.

The talk of the high quality of Canadian furs is not merely a boastful patriotic statement. Last October at the great Paris Exhibition, our own Department of Trade and Commerce was awarded the Grand Prix d'Honneur for its fur exhibit at the Canadian Pavilion. That was the highest prize that could be bestowed on any exhibit. The Canadian exhibit included pelts of all the principal fur-bearing animals of the Dominion, particular displays being made of silver fox and other domestically bred foxes. The award was made by a judging committee which included official representatives from different countries represented at the Exposition.

So we can shed our old fur coat until another winter whitens the landscape and put it safely away with loving regard, secure in the belief that there is nothing better to be got anywhere.

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No. 176. Fri. Mar. 25, 1938 -- Horses for the Old Land

If there is one thing more than another which exemplifies the pride and skill of the Canadian farmer, surely it is his horses. Readers of "A Fact a Day about Canada" will remember that some time ago the Royal Canadian Mounted Police gave us some particulars about their horses, those splendid animals that stir the heart so when we see them on parade -- the horses that made so brave a show at the Coronation of King George last year. You will remember that a great many people had the idea that the R.C.M.P. bred their own horses, but we were told that these fine animals were purchased mainly from farmers living in the district where the Mounted Police were going to use them. Surely there could be no finer tribute to the Canadian farmer's skill.

It will not be surprising, therefore, to learn that in 1937 Canadian horses were imported into the United Kingdom to the number of 287 as compared with 279 in 1936. Forty of last year's lot were hunters. The others were work horses, some of which were taken over to Great Britain by Canadian dealers. One lot, however, was chosen by a British buyer who came over to Canada and made his own selections.



In all cases the selection of the horses is said to have been particularly good, mostly around 16 to 17 horses, sound and well broken, and from four to five years of age.

We know, of course, that many Canadian horses go to the United States for special purposes, such as polo ponies, but it seems unusual to have so many hunters go to the United Kingdom which has Ireland to draw from. Evidently the breed has improved in the Canadian climate.

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No. 177. Sat. Mar. 26, 1938 -- Line Men

When we see a belted man skilfully clambering up a telephone or telegraph pole and adjusting or repairing the wires, we gaze in wonder. He is an agile, brave fellow who rarely makes mistakes. A mistake is likely to be his finish. Our minds turn to the pictures we have seen of South Sea Islanders footing their way up palm trees for cocoanuts.

We call these telephone men "line men", but they are by no means the first to be given that appellation. The New York Sun tells us of one of the little known professions in New York in this day and age, that of the "line man" who has nothing to do with telephony or telegraphy.

Housekeepers of 25 years ago will recognize the term readily and those of years before that, says the Sun, who lived on the East Side will recall that the skill of the "line man" was indispensable for the cleanliness of her linen.

A few of these line men are left. They become less numerous each year and it won't be long before they have joined the cowboys of Eleventh Avenue in the limbo of New York history.

The special province of the "line man" is that solitary and slim pole which still occupies the central position in the areaways behind tenement houses, festooned with clothes lines which stretch from the windows of the buildings on all sides to it like spokes of a wheel that have gone limp. The line men scale these slender monuments of the day when housewives did their own washing and repair the pulleys and clothes lines. It is an organized industry.

The line men as we know them in Canada are the repairers of the wires that carry out messages from one part of the country to the other, and sometimes just around the corner. There are nearly seven thousand of them working on that job according to the last Census.

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No. 178. Sun. Mar. 27, 1938 -- March Birth Stone -- Hematite

There are two birth stones for March, therefore one can have a choice. They are the Hematite and the Aquamarine.

Hematite was the "blood stone" of the ancients, and to us it is still the more familiar term. The name Hematite is derived from the Greek word "haima", meaning "blood". There are no Greek characters on the Bureau typewriters, so we have used the Roman letters to signify the Greek word.

When powdered or cut in thin sections, and in transmitted light, it is blood-red. It is always associated with Mars, the god of war, and on the field of battle was considered to be an invaluable help to the warrior who had rubbed his body with it.

The common variety of Hematite is mined commercially for its iron content, its chemical composition being ferric oxide. It has a steely gray to black metallic colour. The blackest material with the highest metallic lustre is the most valuable. It is extremely heavy and tough, and is usually cut for men's stone signet rings, often with sunken engravings known as intaglios.

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No. 179. Mon. March 28, 1938 --- March Birth Stone - Aquamarine

The deep sea-green, blue-green, and light-blue beryls are called aquamarines, although one rarely thinks of them as differing from the emeralds, except in colour. Aquamarine emeralds, Tecla emeralds, and Crystalline emeralds are a few of the doubtful names for compositions of aquamarine or rock crystal cleverly coloured by inserted layers of green glass or cement, properly called triplets. The so called "Evening Emerald" will be found to be a peridot. "Uralian Emerald" is not the emerald found in the Ural mountains but a green garnet from these same hills.

The emerald is the green variety of the mineral species, beryl. The chemical composition of beryl is silicate of aluminium and beryllium. Only about one per cent of the material found is of fine gem quality. Flawless stones are almost, but not entirely unknown. Usually the better colours, especially those from Colombia, are less perfect, and most of them are marred by many cracks and imperfections that reduce their value. The beautiful rose coloured beryl, such as is found in Madagascar and California, is called Morganite. It was named after John Pierpont Morgan.

Imitation aquamarines are made of glass. Analysed, the glass itself discloses the identical chemical composition and reproduces perfectly the colour and customary flaws. However, imitations have never seriously affected the value or desirability of genuine gems. With the development of the science of gems within recent years, no student of gemology need be deceived, since tests of hardness, dichroism, refractive index and nature of inclusions reveal the counterfeit.

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No. 180. Tues. Mar. 29, 1938 --- Bees from Dixieland

Honeybees are imported in combless packages from the southern United States by the honey producers of the northern states and Canada. The reasons for this are, that in the South surplus bees can be produced very early in the spring and can be packaged and shipped north in plenty of time for the main honey flow. In certain regions, they will produce extraordinary crops of honey. Because of this, many beekeepers follow the practice of killing all their bees in the fall of the year and replacing them with package bees the following spring. Package bees will give better results in regions where the main honey flow is gathered during the months of July and August, but, where the flow starts about the middle of June and ceases during July, the returns are much smaller, often being little more than the cost of the packages plus transportation charges.



Package bees may be obtained in sizes ranging from one to five pounds in weight. The two-pound size is more popular, and packages of this size have been known to produce over 300 pounds of surplus honey under very favourable conditions. The average, however, is much below this, according to C.B. Gooderham, Dominion Apiarist. For most places the packages should arrive during the latter half of April, although bees arriving during the early part of May may give a good account of themselves. In northern regions where the opening of spring is late, the first half of May is a good time. There is no duty on package bees, nor is there excise tax on orders of less than \$25.

The number of bees imported from the United States has been increasing very much in recent years. Last year the value was \$193,000 as against \$176,000 in 1936. Last year we got bees from the United Kingdom to the value of \$272, but that is a long journey. A few years ago we got some from Jamaica, according to the External Trade Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce.

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No. 181, Wed. Mar. 30, 1938 - Plywood Market in the West of England

Plywood is strong thin board made by gluing layers of wood with grains cross-wise. It is used in veneering, a process of covering wood with a thin coating of finer wood. Cheaper or stronger lumber can be made into furniture and a covering of beautifully grained or expensive wood can make the article handsome as well as serviceable.

In recent years by intensive study and experiment the manufacturers of plywood have been able to produce in certain fields a product which is superior to natural wood in strength, durability and artistic appeal. The problem of warping and the layers separating have been overcome, and whereas thirty years ago it was used mainly for bottoms of drawers, backs and partitions of furniture, chair seats and tea chests, now it has entered widely into building construction, office and house furnishing and manufacture of transportation vehicles especially aeroplanes, automobiles and small boats.

The pronounced activity in industry during the past two years in the West of England, South Midlands and South Wales had resulted in a demand for more factory, warehouse and commercial space, and for additional house construction.

Canadian birch and Douglas fir are listed among the types of plywood imported by the United Kingdom. Although the export of birch plywood is small a considerable quantity of Canadian birch is made into plywood in England, principally for aeroplanes.

Canadian exports of veneers and plywood increased from \$131,000 in 1935 to \$683,000 in 1936. The export to the United Kingdom was five times greater, that to New Zealand rose from \$2,000 to \$11,000 and to the Netherlands from \$20 to \$25,000.

These figures are taken from a report from the External Trade Branch of the Dominion Bureau of Statistics.

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No. 182. Thurs. Mar. 31, 1938 -- Mrs. Sulphur Gets Caught

Sulphur was a 76-foot whale caught by British Columbia whalers last year. As it happened, the big Sulphur was the only member of its particular branch of the whale family to be among the season's catch of 317. Probably curiosity as to what other whales were doing was her downfall.

From the point of view of the whaler, the so-called sulphur is the most important species. This whale is the largest living animal -- perhaps the largest ever known. It has been known to reach the length of 91 feet and weight of 140 tons. An average animal weighs about 60 tons.

There were seven Humpbacks taken, 44 Finbacks and the rest Sperms. The Humpback is remarkable for the great length of its flippers and weighs about 27 tons. The Finback is valuable for its whalebone. It is slender and reaches a length of 55 to 60 feet and a weight of 50 tons. Sperm whales yield the spermaceti, a white brittle, fatty substance used for candles and ointments.

The Fisheries Branch of the Dominion Bureau of Statistics reports a catch of 370 whales in 1936. Whalebone meal marketed amounted to 300 tons, whale fertilizer nearly 700 tons and 764,000 gallons of whale oil. The total value of the whale catch in that year was \$172,000, an increase of nearly \$67,000 over the year before.

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DEPARTMENT OF  
TRADE AND COMMERCE



**A FACT A DAY ABOUT CANADA**

FROM THE

**DOMINION BUREAU OF STATISTICS**

**APRIL 1938**

**FOURTH SERIES**



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Published by Authority of the HON. W.D. EULER, M.P.,  
Minister of Trade and Commerce.

Price 25 cents per annum



## Contents

- |   |   |
|---|---|
| 183. Dependency of Youth.                           | 198. Nepheline Syenite.                 |
| 184. Loss of Independence.                          | 199. Ants As A Nuisance.                |
| 185. Effects of Competition.                        | 200. Railway Transportation.            |
| 186. The Cost of Children.                          | 201. The First Canadian Railway.        |
| 187. Repaying the Cost.                             | 202. Development Of Our Railway System. |
| 188. The Cost of Schooling.                         | 203. A Good Record.                     |
| 189. More Instruction.                              | 204. Spare The Rod and Spoil The Child. |
| 190. Influence of Mother.                           | 205. Criminal Statistics Make It Clear. |
| 191. Influence of Guardianship.                     | 206. Passing The Buck.                  |
| 192. Youthful Dependency Resulting<br>From Defects. | 207. What Statistics Tell Us.           |
| 193. The Mentally Sick.                             | 208. Major and Minor Offences.          |
| 194. Deeply Rooted Problems.                        | 209. Is This A Portent?                 |
| 195. Social Welfare Trends.                         | 210. A Reversal.                        |
| 196. Contributory Social Changes.                   | 211. Hard Hit.                          |
| 197. Lumber Drying.                                 | 212. Some Odds And Ends.                |

A Fact a Day about Canada

from the

Dominion Bureau of Statistics

No. 183. Fri. April 1, 1938 - Dependency of Youth

A study of the earnings of Canadian wage-earners in the last three decennial census years indicates that the average young person on reaching the age of 20 in 1911 had earned twice as much as those reaching 20 in 1931. In the latter year the average accumulated earnings of a person's 'teens were equal to slightly less than one year's earnings of an adult male; in 1921 they had been the equivalent of 1.4 adult years, and in 1911 had equalled two. The actual accumulated earnings of young people on reaching their twentieth birthday under conditions of 1931 were \$892, a sum sufficient to have supported them for two years at the rate of \$37 per month. It might be said that they were independent on reaching the age of 18 in 1931, the age of 17 in 1921, and 16 in 1911.

A comparison of school attendance records in the same three censuses shows that the average child spent two more years at school in 1931 than in 1911. Whereas the child attended school for 6.58 full years under conditions of 1911 (10 months' attendance being taken as a full year), he spent 7.58 years at school in 1921 and 8.55 years in 1931. The same two-year increase is evident in the census records of the number of children attending school for some time during the census years; the average child under conditions of 1911 was enrolled in school for 7.96 years, for 9.13 years in 1921, and 9.89 years in 1931. Thus, the two years of added dependency as revealed by earnings were spent in school.

In 1911, the age for leaving school was 14.38, the age for achieving economic independence 16 years. The former rose to 16.25 in 1931, the latter to 18 years. Thus, there has been a continuous gap of approximately 1.75 years between the age of leaving school and the age when the young person is able to earn enough to support himself. School records of age of pupils in the years since 1931 indicate that the long-term trend is not yet broken. Pupils are remaining in school up to still older ages. If the tendency continues unchecked, young people will in a few years be dependent on parents at the age of 20.

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No. 184. Sat. April 2, 1938 --- Loss of Independence

The loss of independence has taken place entirely among young men and boys. Girls have actually gained in earnings while young men up to the age of 25 have lost 35 p.c. since 1911 and 27.5 p.c. between 1921 and 1931.

This loss of the male youth is only partially the result of being replaced in gainful occupations by girls and young women of the same age, females under 25 years of age accounting for only 6 p.c. of the 27.5 p.c. loss during the decade 1921-31, and 7 p.c. of the 35 p.c. loss for the twenty-year period. A greater part of the loss was apparently due to women over 25 years of age who obtained their jobs before the young men were old enough to work and have not relinquished them. These older women began at a higher salary than young girls do now and, during the decade 1921-31, were earning from two to five times as much as the younger ones.



Social effects of the increased dependency are suggested by the unusual fall in the marriage rate among the young people between 20 and 24 years of age (20 p.c. for men and 13 p.c. for women) as well as in the 100 p.c. increase in the illegitimate birth rate from 1921 to 1931.

The reduction in the earnings of young men of ages 20-24 between 1921 and 1931 was almost double the reduction for those in the 25-64 years age group, \$233 as compared with \$127. The earnings of the average woman in the younger age group went down \$87 a year while the woman in the older age group gained \$53 over the decade. The loss in the wages of the younger women was offset in part by the greater relative number of young women gainfully occupied, i.e., individuals worked for less but the group as a whole gained.

The drop in average wages for all ages between 1921 and 1931 was probably not a real loss since they fell only 12 p.c. while prices fell 18 p.c. Earners on the whole were probably better off, except for the youngest and oldest workers.

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No. 185. Sun. April 3, 1938 -- Effects of Competition

The development of large-scale enterprise has increased the proportion of wage-earners to independent workers. In 1911 only 60 p.c. of the gainfully occupied were wage-earners, but 80 p.c. of the new positions created since then have been in this category, with the result that the young men have been forced into the labour market where they have been obliged to compete with women and girls for office jobs and with more mature native and immigrant adults for heavier work. Girls and immigrants have obtained more than their share of wage-earning and salaried positions.

An attempt is made to gain a conception of the actual number of boys and young men of ages 15-24 lacking gainful occupation in 1936. The combined percentage of those without work due either to loss of employment or to never having been gainfully occupied appears to be over 16 p.c.; in round numbers, this group approximates 155,000, or one and one-half times the supply of new workers coming of age annually. Since nearly all of this group are non-farm boys, the average length of idleness for boys living in the city appears to be about two years.

Besides these there is the large number occupied on the home farm without making money. About 70 p.c. of farm workers are not receiving wages. These and many who are in school waiting for jobs have to be considered as possible applicants for new positions.

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No. 186. Mon. April 4, 1938 -- The Cost of Children

An attempt is made to estimate the cost of different items involved in raising a child to the age of independence. It appears that about \$1,550 is required, under conditions of 1931, to feed a child until he is 18 years of age, while clothing for that same period costs about \$800 and shelter over \$2,000. Health, recreational and social costs total about \$600, schooling about \$750.

The cost of an elementary schooling to the community is \$500 per pupil while a high school education requires about \$1,050. The cost of supporting a student in

the universities of Canada is much higher, \$550 being required to pay for one year's schooling. Although only 3 p.c. of the young people attend university, the high cost of such an education raised the average cost to the community to \$690 per average child. When the cost of books and other school equipment as met directly by the parents is added, the total sum required to educate the average child is in the neighbourhood of \$750.

The total cost of rearing a child until his eighteenth birthday is then \$5,750 of which \$4,350 or 77 p.c. is spent on satisfying elementary physical needs, 10 p.c. on health, recreational and social costs and 13 p.c. on education. It costs no more to raise six children and give them an average schooling than to raise seven completely illiterate.

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No. 187. Tues. April 5, 1938 -- Repaying the Cost

How long does it take the average child to repay society for the cost of his rearing, i.e., how many years does he require to earn an income sufficient to balance the amount expended on him during the period of his earlier dependency? Although the young man would be unable to repay the \$5,750 by the time of his marriage, at the age of 27, the combined earnings of his wife and himself equal at age 31 the principal outlay for their rearing but do not account for the interest which has accumulated thereon. The average man in Canada was earning \$927 in 1930-31, which meant that he would have had to spend his total salary for six years to repay the expense incurred by society in rearing him for his first eighteen years.

In the provinces where there are more children in proportion to the rest of the population, their cost must fall more heavily on the comparatively smaller adult population. This is reflected in the shorter average schooling of children in these provinces. Quebec, which has the largest proportion of its population under 18 years of age (43.27 p.c.) has the lowest average school attendance (7.78 years), while British Columbia and Ontario, with only 30.11 and 34.67 p.c. of their respective populations under 18 years of age have an average length of attendance of 9.15 and 9.20 years respectively.

Rural families are larger in size than are urban, (3.22 children per average rural family to 2.68 per urban) but many rural children go to the cities as they reach maturity. This trend is a steady one, 50.14 p.c. of the population at 10 years of age living in rural districts as compared with 41.26 p.c. at the age of 30. It would appear that about 15 p.c. of the rural-raised children become urban dwellers. Since schooling amounts to only 13 p.c. of the total cost of raising children, it is of interest to note that if urban dwellers paid the entire cost of schooling all rural children, they would only be paying the equivalent of the cost of rearing those who in adult years become their residents and supporters.

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No. 188. Wed. April 6, 1938 -- The Cost of Schooling

Although it amounts to only one-seventh of the total cost of raising a child, the cost of schooling is the part which receives the most attention, probably because it is made out of public funds.



Estimates, based upon two entirely different standards of measurement, indicate that Canada's National Income in 1930 was somewhere between \$4,600,000,000 and \$4,750,000,000. Hence, \$165,000,000, the sum spent annually on the schools in recent years, amounts to only 3.5 p.c. of the annual national expenditure. About 55 p.c. of our annual income seems to be spent on satisfying the primary wants of man-- food, clothing and shelter-- including a certain amount of indirect taxes. Direct taxes, from which the greater part of school funds are obtained, amount to 7 p.c. Allowing 8 p.c. put aside as savings, 30 p.c. remains for expenditure on other things, including indirect taxes on them. The amount spent for churches, motion pictures, health, etc. is included.

The estimated value of Canadian schools and universities is approximately \$600,000,000, a sum equal to about 2 p.c. of our total estimated national wealth. The indebtedness of the schools amounts to more than half their estimated value.

On making a comparison of the cost of education in 1913, the last entirely pre-War year, with that of 1931, an increase of 160 p.c. is noted, \$54,000,000 being spent in the former year on publicly-controlled elementary and secondary schools in contrast to the \$140,000,000 spent in the latter. Since the population increased by only 40 p.c. in the same period, it might appear that education is more expensive now than formerly, but on closer examination, it is seen that such a conclusion, based on a comparison of dollars, is misleading.

#### No. 189. Thurs. April 7, 1938 --- More Instruction

Among the factors tending to exaggerate the rise in the cost of education is the changed value of the dollar. The price index in Canada rose from 66 in 1913 (1926 = 100) to 89.6 in 1931. Thus, in inverse proportion to the lower purchasing value of the dollar, the cost of schooling rose 91 p.c. and not 160 p.c. Still another factor is the failure to take into consideration the increase in enrolment from 1,438,000 to 2,214,000 which lowered the average cost per pupil by 30 p.c. Average daily attendance rose from 942,000 to 1,756,000, which viewed in the light of the other two factors, the "real" value of the dollar and the increase in annual enrolment, shows a net increase in cost of 2 p.c. over an eighteen-year period. The school year was lengthened by 10 days which made schooling in 1931, in terms of the reduced purchasing value of the dollar, even cheaper than it was in 1913. Lastly, in comparing the quality of schooling given for those two years, we must consider the increased proportion of pupils who are obtaining secondary schooling. It costs twice as much per year to educate a pupil in the high school as in the elementary school. Therefore, education, in terms of "real" dollars, amount of schooling received and type of services rendered, was 10 p.c. cheaper in 1931 than in 1913.

In addition to the pupils getting more instruction per dollar, they are probably getting a better quality of instruction. The teachers' qualifications are much higher. In an examination of the statistics on teachers' professional standing, it is seen that whereas only 17 p.c. of the teachers in 1913 had first class certificates, 38 p.c. were in possession of them in 1931. The proportion of teachers holding second class certificates rose from 50 to 55 p.c., while certificates of the third class or lower were held by only 7 p.c. of the teaching body in contrast to the 33 p.c. in 1913. Of the latter class 9 p.c. had no recognized professional standing in 1913 whereas almost all the teachers had a recognized standing in 1931. This higher standard is not only evident in the certification but also in the higher qualifications required to obtain the same certificates. Higher academic standing, more normal school

training and summer school courses have all contributed to improve the teachers' professional equipment. The tendency of teachers to stay in the profession for a longer time, as well as better buildings, equipment and facilities must have tended to improve the quality of education given to the modern younger generation.

Although the pupil was given a better deal for his money in 1931 both in quantity and in quality, it does not mean that it was easier for the taxpayer to support the schools. In terms of the purchasing power of the dollar, school costs went up 91 p.c. in the period. Although there were more gainfully occupied persons to share this burden, it cost the average gainfully occupied person 41 p.c. more in the later year.

Due to the unequal distribution of population and of children, educational costs fall more heavily on the shoulders of the rural population. Violent fluctuations in the prices of primary products affect the smaller urban and the rural communities more acutely than they do the large urban centres depending on a more diversified economy. The only solution to this problem seems to lie in the creation of a larger unit of school support with the cost equalized over all the communities in the unit, urban and rural, large and small. Although the province would be the most effective unit, two things stand in the way-- the hesitancy of the local school boards to yield their autonomy to Provincial Governments and the inability of the provinces to assume the greater financial burden involved. A redistribution of responsibilities or powers of taxation among municipalities, provinces and Dominion may be necessary to solve the latter problem.

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No. 190. Fri. April 8, 1938 -- Influence of Mother

Children living with their mother only have a slightly better school attendance than children living with both parents, in contrast to which, children living with their father only have a poorer attendance record. While the literacy of children living with their mother only is not as good as that of children residing with both parents, it is nevertheless superior to that of children living with their father only.

Where the parents are both literate, there is a high degree of literacy among their offspring. When only one of the parents is literate, illiteracy is fifteen times as great as when both parents can read and write, but when both parents are illiterate, there is forty times as much illiteracy as in the first case.

Children of immigrant parents, including those who came from Continental Europe, are less illiterate than are native Canadians. Those whose parents are from the British Isles have the best record, with those of United States parentage coming next.

The distribution of guardianship children among the provinces varies, the Maritimes having a higher proportion of children who are not living with their own parents than the other sections of Canada. Among the factors which affect the distribution are the differing rates of illegitimate births, maternal mortality, rural-urban distribution of population and the extent to which orphans can be accommodated in the different provinces. The age distribution reveals that there are more orphans in the higher age brackets than in the lower, a natural occurrence.

Children living with their own parents have a better school attendance record



than have guardianship children; there is also less illiteracy to be found among the former group. Relatives give their wards a better schooling than do strangers, while women are better guardians in this respect than men, and older men have a better record than young men who have to care for their younger brothers and sisters.

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No. 191. Sat. April 9, 1938 -- Influence of Guardianship

There is more illiteracy among children of illiterate guardians than among literate ones. Since close to one-tenth of the guardians are illiterate, this tendency is significant. Children with guardians coming from the British Isles have the best record of schooling, while native Canadian guardians are most neglectful in educating their wards.

Children living in institutions such as orphanages, hospitals and shelters are more numerous at school ages than at younger ages. They are fewer in number than those living with foster parents. Quebec has relatively more than the other provinces, possibly because of the existence of a larger number of such institutions in that province.

The special 1931 Census of Institutions shows that there were approximately 35,000 children under the care or supervision of charitable institutions of whom two-thirds were under 15 years of age. Of these 35,000, 19,643 were in residence at these institutions, 7,085 were working for wages and were living in private homes while being under the surveillance of the institutions, 3,479 were quartered in private homes free of charge, while 2,300 had their board in private homes under supervision of the Children's Aid Societies. The same census disclosed 2,731 under the age of 15 in the mental hospitals of Canada while the reformatories housed almost 1,000 children who were under that age.

Orphanages account for a large proportion of those living in institutions, and there is more detailed information on the schooling of their protégés. Some conduct schools while others send the children to the ordinary publicly-controlled schools. A comparison of the age-by-grade records seems to show that orphanage children do not make out as well as other children in their school work. Their average grade falls more and more behind the average for others as they become older, but this is probably because the brighter children tend to be placed in private homes.

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No. 192. Sun. April 10, 1938 -- Youthful Dependency Resulting from Defects

A certain proportion of youth is dependent to an exceptional degree, by reason of defects. Blindness is first considered but it is not often an affliction of the young. There were only 634 people blind under the age of 20 in 1931; among older persons there were 6,679. Less than one-fifth of the blind were gainfully occupied with the average earnings among men being between \$500 and \$600 and those of women between \$300 and \$400. That blindness incapacitates most individuals to the degree that they become entirely dependent is to be seen from the fact that only 37 p.c. of the blind between the ages of 25 and 49 are gainfully occupied. Special schools and special classes have contributed greatly to increase literacy among the blind,

as well as to prevent those with poor vision from becoming entirely blind.

Of the 6,767 deaf-mutes recorded in the 1931 Census, 6,000 had suffered from the inability to speak or hear before they had reached the age of 5 while 4,093 had been born deaf and dumb. Almost one-third of the deaf-mutes were in gainful occupations. Not only did the deaf-mutes have a higher percentage of gainfully occupied than the blind in the best earning years but they also earned more. Despite these higher proportions, they were insufficient to make the group as a whole independent.

Schools for the deaf are provided by the Provincial Governments and have a combined enrolment of 1,400 pupils. Special classes for the hard-of-hearing are also contributing to the alleviation of the inconvenience and distress suffered by those handicapped by auditory disabilities.

Although there are no census data on the number suffering from other physical defects, such as loss of the use of limbs and constitutional weaknesses, statistics on special classes in schools and hospitals indicate that they are as numerous as those suffering from defective hearing. In addition to those attending special classes, many, unable to attend these schools, are taking correspondence courses offered by six of the provinces.

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No. 193. Mon. April 11, 1938 -- The Mentally Sick

Two-thirds of the patients in mental hospitals in 1931 were admitted before they had reached middle life. There are now several institutions for children. Illiteracy is more common among those admitted to the hospitals in their earlier years than among those who have reached maturity prior to admission. This indicates that the causes for incarceration of the younger people are different from those affecting the older people, constitutional defects being a greater factor in the former case, environmental factors in the latter. Almost half of the female inmates are married, but only about one-fourth of the males, a condition which probably has significance in regard to hereditary types of mental cases.

Special classes for mentally defective children are now being conducted in cities from coast to coast, and though they are more expensive per pupil than other classes, it is claimed that the results obtained justify the investment.

Delinquency is to juvenile behaviour what crime is to that of the adult. When leading to incarceration it means dependency. It is more prevalent in urban districts than in rural, with the large city having relatively many more youthful misdemeanours than the town or village. The annual number of convictions for major delinquencies is over 5,000. There has been some increase in proportion to population though not as much as in the case of adult crime. The number under the age of 18 continuously confined to corrective institutions is approximately 2,500, roughly three-fourths boys and one-fourth girls.

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No. 194. Tues. April 12, 1938 --- Deeply Rooted Problem

In the Dominion as a whole youth has for fifty years constituted a decreasing proportion of the total population. In 1931 there were only 51 persons under the age of 16 for each 100 older, whereas in 1881 there had been 68 per 100. But if we consider the older ages to which young people now remain children, economically speaking, the change in ratio is in the other direction. It is recalled that they were dependent until 18 in 1931, whereas twenty years earlier dependency had ended at 16. Considered in this way, the ratio of children to adults in post-War years has probably been higher than ever before. At the same time that the real ratio of youths to adults increases, so does the ratio of aged adults to those in middle life.

Old age pensions have been a recognition of the increase in dependency at the upper end of life, but there has been no comparable measure directed against the change at the lower end, even though Canadian industry in the last ten years has absorbed only the youth who have come of age in nine years, and in the last twenty years only those who have come of age in eighteen years. The fact that industry for so long has come 10 p.c. short of using the biological supply of youth, should make it clear that the youth situation is not just a depression phenomenon but a deeply-rooted problem.

Among the better-known solutions that have been attempted or recommended, here or in other countries, are compulsory military service, labour camps, forced retirement of older workers, restrictions on immigration and employment of women. It is hardly possible for this study to express preference among such controversial solutions but a lesser known remedial measure can be described.

In Great Britain a special service to youth is conducted through the medium of the employment service. There is a juvenile section in each employment office which works in close co-operation with the schools, advising young people before as well as after leaving school. For juveniles above school age who are without work, there is in each city a "junior instruction centre," quite distinct from the ordinary school system, being under the supervision of the Department of Labour. Effort is not confined to finding jobs, but attempts to find for each young person the position for which he is best fitted. In short, vocational guidance for youth is organized on a national scale. It might be to the advantage of employers as well as young people in Canada, if it received more attention here.

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No. 195. Wed. April 13, 1938 --- Social Welfare Trends

Since the opening of this century, there has been a fairly steady expansion in the assumption, as a public liability, of the welfare needs of the people. This development seems part of a world-wide tendency following upon the fundamental changes in community and social life which the Industrial Revolution began and which the war and technological change have accelerated in recent decades.

In Canada, this development has meant a rapid growth in public expenditures on the social services, particularly in the fields of public health and public welfare, by municipal, provincial and even federal authorities. At the same time, this expansion in public costs has not been accompanied by any marked contraction in the disbursements of private philanthropy. As a matter of fact, in the field of social services proper, voluntary philanthropy has probably expended more funds and efforts

in most Canadian communities during the last decade than in the preceding two decades. Especially in connection with hospitals and charitable and benevolent institutions, voluntary effort continues to discharge a very large share of responsibility in day-to-day management, even where statutory provisions assure the larger part of operating costs from public funds.

These tendencies, already evident in the post-war period, have been intensified in this decade of economic distress, with the result that not only has the participation of provincial and municipal authorities in public welfare changed in nature and extent, but the Dominion Government has assumed liabilities beyond the concept of fifteen years ago.

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No. 196. Thurs. April 14, 1938 -- Contributory Social Changes

The social changes contributory to these developments have been accompanied by equally significant changes in the nature of the services provided. Traditionally, the Poor Law of England provided the basis of public welfare administration in Canada, and under its influence the provinces, settled for the most part by British people, relegated to municipal responsibility the custodial care of the needy and distressed. The practice of the French-speaking parish was essentially similar, but modern trends have moved away from such concepts. Mothers' Allowances, the granting of aid to the needy mother and children in their homes, superseded care in children's homes, orphanages or almshouses; Old Age Pensions substituted similar care for institutional care of the aged; while the out-patient department and the provision for medical care of persons living in their own homes is an equally significant development in respect to hospitalization care. Recent unemployment relief and other provisions have been away from the almshouse. Even where institutional care is needed, admission is but a step to observation, treatment and placement again/in the community if at all possible. This is the basis of "shelter care", increasingly recognized in the care given by children's homes and orphanages.

While these services are provided as definite and permanent features of community life, the care given therein is not necessarily accorded on a permanent basis. In children's agencies the turn-over is likely to be rapid, though the total population in care may be fairly comparable over a period of years. Care in homes for the aged or for incurables, on the other hand, is on a more continuing basis.

The last five years have brought a new group of custodial services into existence in some of our larger cities-- hostels and shelters which care particularly for the non-resident man and, in some cases, for women similarly placed. This type of care arising out of the depression has been provided largely on an emergency basis and at the public cost.

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No. 197. Fri. April 15, 1938 -- Lumber Drying

Research conducted by the Forest Products Laboratories of the Department of Mines and Resources, and similar organizations in other countries have played an important part in improving lumber drying. The drying of lumber for different purposes and for export markets is one of the most highly scientific processes in the



manufacture of lumber.

A drying treatment must be worked out for each species as no two kinds of timber contain the same amount of moisture. For example, a thousand feet of Canadian yellow birch when freshly sawn weighs about 4,700 pounds, of which about 2,000 pounds is water. When this wood is dried for use such as furniture, the 2,000 pounds of water is reduced to about 190 pounds. Some species contain even higher proportions of water and some, much lower proportions. Douglas fir, a particularly dry wood in the standing tree, contains only about 900 pounds of water per thousand feet.

For commercial use it is not necessary or desirable to remove all water, for if this were done the lumber would take up moisture from the surrounding air. In order that wood used for furniture, and other purposes, may not shrink or expand unduly, it is necessary that the wood be dried to the proper degree. If the drying is not done carefully, losses of twenty per cent or more of the value of lumber may result from checking, warping and bowing. In a year's operations, these losses may amount to, in Canada, from five to ten million dollars, if seasoning conditions are not favourable. The requisite amount of drying varies greatly in different countries, depending on whether the climate is as a rule dry or humid.

No. 198. Sat. April 16, 1938 -- Nepheline Syenite

Marked progress is reported by Canada's nepheline syenite industry with the value of production in 1937 amounting to \$121,481 compared with \$37,426 in 1936. Production of the new ceramic material was begun in 1936.

Established to produce material for the domestic glass-making industry, the industry has been a success from the start, and has found a ready sale for its entire output. Last year the capacity of the processing plant at Lakefield was increased from an initial rate of twenty tons daily to forty tons daily, and extensions were made to the quarry plant, which brought the producing capacity of the present installation up to 400 tons of shipping rock daily.

Active prospecting of the same general region has been carried on, and several deposits of promise have been located. Three of these properties were operated in 1937, with a total output of about 2,000 tons of crude syenite.

According to the Department of Mines and Resources, Ottawa, the large deposits of nepheline syenite which occur in Peterborough, Hastings and Haliburton counties have been known for many years, but it is only in recent years that their economic importance was established. Although interest in the mineral at present is centred chiefly in its use in the glass industry, research has shown that it is suitable for several other ceramic uses, including semi-vitreous and sanitary ware, and sheet-steel enamels, and it is probable that the field of use will be still further extended.

Nepheline syenite from the Ontario deposits has already become a serious competitor to straight feldspar, which mineral it may progressively supplant for various ceramic uses.

No. 199. Sun. April 17, 1938 -- Ants As A Nuisance

The tiny active insects known as ants are especially numerous in the summertime and are frequently unwelcome intruders in homes and gardens. There are many species of them, all are social in their habits, and live together in colonies. The majority of the ants in a colony and the ones most commonly seen are wingless undeveloped female workers, which are incapable of reproducing their kind.

A common and troublesome household species is the tiny reddish-yellow Pharaoh's ant, which originated in the tropics but is now widespread in Canada. The common large black carpenter ant is normally an outdoor species nesting principally in decaying wood, but frequently occurs in dwellings, particularly frame houses and summer cottages, and may cause damage to woodwork. A third common species is the small yellowish-brown lawn ant, which nests in lawns and gardens and often enters houses in search of food.

According to the Division of Entomology, Science Service, Department of Agriculture, Ottawa, the most satisfactory material for destroying ants is sodium fluoride, sold by druggists in the form of a fine white powder. This powder should be scattered or blown with an insecticide puffer or dust-gun in places where the ants occur, and should not be removed until the insects have disappeared. Sodium fluoride is a poison and should not be exposed in places where children or pets may have access to it. Another method, recommended as particularly effective against Pharaoh's ants, consists of using a poisoned-bait trap. This is made by punching several holes in the sides of a small tin can with a tight lid, and placing in it a small piece of sponge and a small quantity of syrup prepared by mixing 4 ounces of sugar and  $\frac{1}{4}$  ounce of honey in one-half pint of hot water, and adding  $\frac{1}{2}$  gram of sodium arsenite. The worker ants are greatly attracted to the bait and take it to their nests to feed the larvae and queen. Thus the whole colony is destroyed. Sodium arsenite is very poisonous to humans.

The nests of the ant colonies may be destroyed by puncturing holes in the surface and pouring in a small quantity of carbon bisulphide. Heavy gas is given off by this liquid and its effect may be increased by covering the nest with an old coat or sack. Care should be taken not to expose carbon bisulphide near fire as it is very inflammable.

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No. 200. Mon. April 18, 1938 -- Railway Transportation

John Ruskin described railways as "the loathesomest form of deviltry now extant; animated and deliberate earthquakes, destructive of all nice social habits or possible natural beauty; carriages of damned souls on the ridges of their own graves".

The view of that great writer corresponded with that of the unsophisticated Nova Scotian farmer who, when he saw for the first time a locomotive rushing along in the darkness of a moonless night, scattering sparks above and hot cinders below, declared it was "hell on tracks".

Today a model locomotive and train of cars is a cherished plaything and few small boys are satisfied until they run a train of cars; to them it is something majestic. Ruskin notwithstanding, the traveller of today marvels at the comfort of modern transportation equipment, and glories in the rounded contours of the hills, the beauty of the valleys and the landscape of our rivers and lakes as he journeys by rail.

Until the year 1785 the methods of transportation in vogue in America were



almost as primitive as they were two hundred and fifty years before when Jacques Cartier sailed up the St. Lawrence. Canoes, rafts, flatboats, barges and small sailing craft, the horse and mule, the oxcart and covered wagon, and in some small degree the stage coach, were the only means by which persons and property could be transported from place to place. Trails and roads were at times hazardous, if not impassable, and always expensive and slow. Water routes often involved portages around rapids and falls and between head-waters of streams.

The invention of the steam engine by James Watt in 1773 attracted the attention of advanced thinkers to a possible steam locomotive. Erasmus Darwin, the grandfather of Charles Darwin, in one of his poems made this remarkable prediction:

"Soon shall thy arm, unconquered steam! afar  
Drag the slow barge or drive the rapid car."

Contrast this with the solemn warnings of contemporary scientists who said that human beings would suffocate on a vehicle travelling faster than fifteen miles per hour.

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No. 201. Tues. April 19, 1938 --- The First Canadian Railway

The first charter granted to a railway in Canada was that of the Company of the Proprietors of the Champlain and St. Lawrence Railroads, in 1825. This railway, only sixteen miles in length, and with a gauge of five feet six inches, was built from Laprairie on the St. Lawrence River to St. Johns on the Richelieu with the object of securing speedier communication between Montreal and New York by a mixed rail and water route. It has the distinction of being the first passenger railway in Canada and was opened in 1836. On the occasion of the opening, the train consisted of four cars drawn by horses and the following year the locomotive "Dorchester", more familiarly known as the "Kitten", was put into service. The first railway president was the Hon. Peter McGill and the first railway return presented to the Legislature of Canada was that of this railway and is to be found in the Legislative papers in 1845. For the year 1842 the return showed 27,000 passengers and nearly 8,000 tons of freight. The gross receipts were \$68,000 and the expenditures \$53,000.

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No. 202. Wed. April 20, 1938 --- Development of our Railway System

The real start in railway construction began at the middle of the last century. A score of railways were opened from Nova Scotia to Western Ontario, and while they have since largely lost their original names they nevertheless form in most cases a part of the two present large railway systems.

Railways had much to do with the development of the Confederation plan. In 1867 the provinces of Ontario, Quebec, Nova Scotia and New Brunswick were welded into a national entity-- the Dominion of Canada-- and, as one of the prices paid for the entry of the Maritime Provinces into Confederation, the Intercolonial was started. Later on, the bargain for the entry of British Columbia, was the building of the Canadian Pacific to the coast. Important links were also made with the United States.

The early years of the present century formed a period of feverish activity. The newly born Canadian Northern and the Grand Trunk extended their systems. The second year of the Great War, 1915, was marked by the completion of the Grand Trunk Pacific to Prince Rupert and that of the Canadian Northern ending at Vancouver.

As the world war opened the railways of Canada spanned the continent by means of six different routes, three situated for the full distance in Canada except the C.P.R. link across the State of Maine and the Canadian Northern along the north-eastern edge of Minnesota. The desperate financial condition of the Canadian Northern, Grand Trunk and Grand Trunk Pacific led to their incorporation with the Inter-colonial and National Transcontinental and the other government railways into the Canadian National system controlled by the Dominion Government, the last step of which was taken fourteen years ago. Following this the principal railway extensions in Canada have been the Hudson Bay Railway, which reached its terminus at Churchill, and the Temiskaming and Northern Ontario, which reached the waters at James Bay, named after its discoverer three hundred years before.

Railway mileage in Canada has increased from 16 miles in 1836 to over 42,000 in 1936, or exactly one century later. The population per mile of railway is about 245.

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No. 203. Thurs. April 21, 1938 -- A Good Record

Railroads are justly proud of their safety record. In a period of remarkable developments in all forms of transportation, riding in a passenger train is about the safest thing one can do. Last year there was but one passenger killed in three and a half million passengers carried whereas over twelve hundred deaths resulted from automobile accidents, or over one death per thousand registered motor vehicles.

Railways have always been very progressive and, according to report, what we may look forward to, now that streamlining has become an accomplished fact, is the electrically welded continuous steel rail. This will eliminate the click-click, one click for each car wheel and each thirty-nine feet of rails. It will mean smoother riding for the passengers and longer life for the rolling stock.

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No. 204. Fri. April 22, 1938 -- "Spare The Rod and Spoil The Child"

One afternoon a while ago as we were doing some tall thinking in order to make a start on an evening's radio talk, a visitor walked into the office, and, after the usual friendly salutation, inquired what the next broadcast was to be about:

"Spare the rod and spoil the child", he was told.

"There is nothing in that", the visitor commented. "I never got a licking from my father."

The obvious retort was: "Now, if you had, a better man you might have been."

So far as our experience goes, it is unusual to come across a man approaching



middle age who has never been spanked. If it was right that he should have escaped the tawse, then he must have been a model boy--- or his father a man who believed other methods more effective.

No philosopher has had so much influence on the thinking of the Western world as Solomon-- leaving aside the Divine, of course. No thinker or writer has swayed opinion so powerfully as has done the great solon of Israel. He must have had a marvellous experience with children. The records tell us definitely about his huge household of wives, but omit any calculations as to the number of children in his nursery. It would be interesting to know just how many he had. We cannot tell, but it seems perfectly safe to say that no man in mediaeval times, or since then, has been the acknowledged father of so many youngsters as he must have had.

What did Solomon say? Here it is, plainly set out: "He that spareth his rod hateth his son, but he that loveth him chasteneth him ~~bet~~imes."

There you are. If you are so inclined you can call Solomon's rod symbolical and take it that he meant punishment in any form that that very wise man considered most likely to be effective in correcting a wayward child.

Without allowing ourselves to be mixed up in any argument on the subject of parental discipline in the school or in the home, or getting into a discussion upon the merits of this or that method in general or what should be done in particular cases, there are some facts that can be cited from statistics which show what happens when errant youth is not rigidly disciplined in some way or another.

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No. 205. Sat. April 23, 1938 -- Criminal Statistics Make It Clear

It will be admitted that Canadian children of today, generally speaking, are not subjected to the same stern corporal punishment for wrong doing that used to be the lot of Canadian youth. The change has been quite pronounced in the last quarter of a century. We have seen a schoolmaster, the chap who belongs to the one profession outstanding among all those that try the patience-- we have seen a schoolmaster hauled into court for giving a hiding to a young devil of a boy who had created an unendurable situation. A clever lawyer made the poor schoolmaster look like a savage monster. We have seen community feuds worked up over such a trivial incident. Public opinion seems to be against corporal punishment except in extreme cases. A great many school teachers have themselves taken that stand.

So if we assume that the birch rod is simply a symbolic term for punishment or discipline, we shall understand clearly what criminal statistics reveal. You can substitute for "spare the rod and spoil the child" something like this: "He that neglects discipline will ruin his child; he that withholdeth discipline is an enemy of his boy or girl."

Our Criminal Statistics Branch makes this very positive when it says: "While reasons for Juvenile Crime have never been compiled, due to the fact that this kind of information is difficult to get, as it is not given at all in the returns of Magistrates, and very scantily covered by some Juvenile Courts, still the lack of discipline at home is a big, perhaps the outstanding reason for Juvenile Crime.

"In one Maritime City, out of 97 cases for which the reason for a Juvenile being arrested was given, 73 cases, or roughly 75 per cent, were attributed to lack of

discipline at home. In another Maritime city, lack of parental control was shown as the underlying reason for delinquency in 100 per cent of all given cases.

"In a group of five Ontario cities, reasons for 240 delinquencies were given, out of which 130 were attributed to lack of parental control.

"One Ontario City shows that 58 out of 62 delinquencies were stated by the authorities as being due to lack of discipline at home."

Pity the poor children-- especially the child in the small family. The small family, to very many people, has become the dominant view of domestic happiness. The one-child family enables parents to have more leisure for pleasure-seeking social activities. The mother, in these more regimented days of domestic duties, can leave her home more frequently than the mothers of a generation ago, with their larger families, were able to do. The constant outing becomes a fixed habit. The child is neglected-- often left in the care of unskilful and irresponsible domestic help, and more often left alone. The child runs the streets, in touch with influences that are not good.

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No. 206. Sun. April 24, 1938 -- Passing the Buck

Parental responsibilities have been passed on, to some extent, to the courts, and particularly to the juvenile courts. It has been found that the establishment of juvenile courts, more especially in the cities, leads almost invariably to a decline in the number of juveniles brought before the courts and convicted. The records show that 8,425 children were found guilty of various offences in 1930 and six years later the number had dropped to 7,210. That was a betterment of over one thousand. Of course a great many more than that were before the courts.

Before the establishment of Juvenile Courts, juveniles were tried in the regular manner, sentenced to reformatories, etc., but a large number were given suspended and other sentences, which just put them back into the homes or under the same influences which caused them to stray into crime in the first place.

In England many years ago, the Criminal Law showed but little tenderness towards children. Up to the age of seven, a child was presumed incapable of felonious intent but a youngster of eight years who had "with malice, revenge, craft and cunning" set fire to a barn, was convicted of felony and duly hanged. Even as recently as 1833 a boy of nine years was sentenced to death for stealing an article of the value of four cents.

Children were in all respects treated by the criminal law as adults. Thrown into gaol to await trial they came in contact with hardened criminals. If finally declared innocent, there could have been little innocence left after a prison experience. The use of the rod was such an obsession in olden times that Royal families kept a "whipping boy" who carried out the abominable duty. Read "The Fortunes of Nigel."

But that has all been changed. Children who have broken the law are summoned to appear at a juvenile court where a sympathetic judge tries to gain their confidence by a friendly, personal talk. The causes and circumstances leading to the misbehaviour are receiving attention. Punishment is not going to correct home



conditions or some physical or mental defect.

The establishment of juvenile courts and the attendant probation systems includes the study of family relations by the courts through their clerks and probation officers.

Thus many cases, where lack of discipline at home due to carelessness, trouble between parents, death of one or both parents, was the cause of crime, are now placed under the control of probation officers, of Boy Scouts, Big Brothers, Big Sisters and other social work organizations, where much of the discipline, etc. lacking formerly, is given, with the result that many potential criminals, due to the example and discipline of those organizations, do not come back to the courts.

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No. 207. Mon. April 25, 1938 --- What Statistics Tell Us

To show the situation clearly let us compare the record of 1936 with that of 1935. There was a marked decrease in the number of cases brought before the courts. The decrease totalled over six per cent. There were increases in Nova Scotia and Ontario but these were more than neutralized by decreases in all the other provinces. There were 8,768 cases brought before the courts in 1936 and 9,397 in 1935; 4,970 were convicted of major offences compared with 5,514. Of these 4,970 convictions for major offences in 1936, 4,774 were boys and 196 girls. There were 1,950 boys convicted in Ontario alone.

About half of the children charged with major offences were released on probation under supervision of the court, while 36 were returned to their parents, 559 were sent to industrial schools and 57 were given corporal punishment. The small number given the lash illustrates the trend in our attitude towards corporal punishment. The courts, quite apparently, do not believe that it is an effective remedy in very many cases, comparatively speaking. Over 400 of the children were simply reprimanded, and no doubt the wise judges saw that the experience of arrest and appearance in court was a sufficient deterrent.

Among the major offences, theft and robbery were by far the most numerous. These accounted for over four thousand. Next in order came wilful damage to property. Fifteen were convicted of arson and over one hundred for assault. There were fewer than one hundred found guilty of charges which had to do with immoral conduct. One boy was guilty of manslaughter. Some boys tried to wreck trains.

Repeaters of major offences in 1936 were more than for the average year. One out of every three had been in court before. One out of every seven had had one previous conviction and one out of every six had been more than once convicted by the courts. These were probably the incorrigibles.

Thirty-four boys and one girl committed major offences at the early age of seven. Of the 46 boys who were in Grade 1 at school, four were 13 years old and 10 were 7. About one thousand of them gave no degree of education at all.

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No. 208. Tues. April 26, 1938 -- Major and Minor Offences

The line of demarcation between what we call major offences and minor offences is very thinly drawn. Some of these minor offences we are accustomed to regard as quite serious in children. Cruelty to animals, carrying fire-arms, disorderly conduct, drunkenness, gambling, indecent conduct, profane language, setting fires, ringing false fire alarms, all these come under the category of minor delinquencies. So do some other things such as riding a bicycle on the sidewalk, having no light or bell on the bicycle, playing ball in the street, driving a car under age. These do not occur to us as serious and the mere checking of them is usually sufficient to prevent repetition.

Last winter a boy was given an air gun as a birthday present by his father. The boy proceeded to plug holes in the storm windows of a neighbour's house. Was the father not more to blame than the boy? We started out by saying "spare the rod and spoil the child". Pity the children.

Although it is to the United States that the credit of developing the system of Children's Courts is mainly due, the earliest enunciation of the general principle has been traced to Switzerland. There are now eleven European countries which have established Children's Courts and others are quickly following. The age up to which they exercise jurisdiction varies. In Spain, for example, the age is 15; that age in Spain marking a degree of physical development equivalent to 18 in northern countries. In Europe, as in America, the balance of experience and opinion favours the age of 18.

Even in India, where we consider children as being ushered into adulthood far too soon, the question of children's courts has been taken up zealously.

With the world as a whole taking this problem seriously it will not be possible for an affectionate mother to come to the hospital and say, "Our Emily can't tell the truth because she has got adenoids", and if she were right, what then?

No. 209. Wed. April 27, 1938 -- Is This a Portent?

The Prairie Census of two years ago presented us with something new in the movement of population, which may or may not be a portent of the future. It may simply be a reflex of temporary conditions which were in existence during and because of the great depression. It was at any rate enlightening to discover that the population of the urban centres had been decreasing since the census of 1931 and that of the rural districts had been increasing. Whether it has been a real back-to-the-land movement, time alone will tell. Yet there are indications enough that the future of country, or farm life to put it more nearly correct, is going to exhibit some remarkable changes in practice and, no doubt, also in outlook.

The change that has taken place in the Prairie Provinces is very different from what has been the experience of older Canada. In the early days when Canada was young, and it was a country almost entirely of farmers and hunters, particularly along the banks of the St. Lawrence, the great farms were split up until they could be divided no longer. With the arrival of the machine age, the question of hired help became less pressing, the villages and small towns stood still or decayed, and the young men and women moved to the cities for employment.



The machine age had made changes in the cities. Factories began to thrive as never before. All business was expanding and there was a call for workers. The country was being depopulated.

Once the situation became stabilized, the rural population in older Canada continued big enough to be equal to the demands the agricultural holdings made upon it. Broadly speaking, the country population has been maintained in recent years.

#### No. 210. Thurs. April 28, 1938 -- A Reversal

The experience of late in the Prairie Provinces is a reversal of what happened in older Canada. Whereas in the East people left the country and went to the city, in the West many people are leaving the city and going to the farm. The movement is so pronounced that there is no doubt about it.

During the five years prior to the Prairie Census of 1936, the number of country dwellers in Manitoba increased by 16,000, in Saskatchewan by 30,000 and in Alberta by the very large number of 34,000. Incidentally the rural inhabitants of these three provinces far exceed the urban dwellers, so that agriculture is in a very real sense the basic industry.

Of course, underlying economic conditions should be kept in mind in interpreting the changes in population recorded by the census. There has been a movement of rural population from southern Saskatchewan to the northern part of the arable belt in that province and a pronounced movement to the northern agricultural areas of Alberta. Alberta has shown the greatest population increase and the increase was largely rural.

Indeed in all three provinces the proportion of urban population has declined, due to the effect of the agricultural depression upon the commerce and industry of urban communities, while the rural population has increased, in spite of the conditions of hardship and privation experienced over some wide areas.

Probably the depressed condition of the basis agricultural industry in the Prairie Provinces during the five years prior to the latest census, accounts for the evident exodus of men from Manitoba and Saskatchewan. In these two provinces the increase of population in the five-year period has been accounted for by the increase of females. There was an actual decrease of males in Saskatchewan. In Alberta, the increase of 41,000 in the total population was accounted for by an increase of 18,000 males and 23,000 females. In all three provinces, while there was still an excess of males over females, the proportion of the sexes has been brought more nearly to a balance. There are about 677,000 men working on farms in these three provinces, that is, including members of the family who work on the land, including temporary help, and fewer than 26,000 women.

No. 211. Fri. April 29, 1938 -- Hard Hit

In recent years some districts of the Prairie Provinces have been hard hit by misfortune in the shape of drought, rust and locusts. The wheat lands have suffered and overcome vicissitudes from the very beginning. The Selkirk settlers were the pioneers. Crofters from the old land, short of implements, worked over the prairie sod with a hoe, and their first harvests were endangered in the autumn by the birds of the air. Huge flocks of birds, including the now extinct Passenger Pigeon, settled in the fields and considerably diminished even such small crops as had been produced. However, after years of fighting nature and their fellow men, the pioneers of the West were able to establish farms. The population of the Red River Settlement in 1822 was 681. There were 128 horses. In that year they sowed 236 bushels of wheat, 143 of barley, 13 of Indian corn, 570 of potatoes and 18 bushels of peas. That was the beginning of the world's granary. Today over two-thirds of the field-crop acreage of Canada is concentrated in these three Provinces. Wheat is the predominant grain.

During the last few years these parts which have suffered from drought are still potential producers of great crops and the faith of the people has never faltered. It is exemplified by the issue of a newspaper called "The Prairie Optimist" by some young lads in south-western Saskatchewan which replaces what was formerly known as the "Dry Belt Weekly". Surely there could be no greater tribute to courage than that.

Apparently there is very real reason for optimism. Agricultural scientists have been busy in discovering cures for the evils that have struck the West. A rust-resistant wheat has been found. A tremendously fibrous-rooted forage plant has been created which will bind the soil that has been drifting. The plant is said to thrive on the minimum of moisture. Trees are being planted as windbreaks and for holding moisture.

Then there are the great irrigation schemes which are under way and being planned.

Altogether the prospects seem to justify the faith that was in the early settlers. The troubles of certain sections of the vast prairie lands are being overcome and large rural populations will continue to be built up.

It is a definite contrast, even now, with what happened in the rural districts of Eastern Canada years ago-- a complete reversal.

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No. 212. Sat. April 30, 1938 -- Some Odds and Ends

As a result of the rapid improvement in general economic conditions last year, the farmers of Canada spent about 60 per cent more on farm implements and equipment than they did in 1936. The domestic sales at wholesale prices amounted to 30 million dollars.

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Deaths from automobile accidents in 1937 amounted to 1,611, which was almost 300 more than in 1936. It was about 450 more than the deaths from smallpox, typhoid, scarlet fever, diphtheria and infantile paralysis combined.

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The consumption of coke is increasing in Canada. It is used very largely as a domestic fuel, as well as in blast furnaces and cupolas, manufacturing, mining and smelting. Ontario uses nearly twice as much coke as the rest of Canada combined.

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Apart from the United Kingdom, Canada's best customer for cheese lately was the Island of Jamaica, with the United States, Newfoundland and Trinidad coming close behind. The total amount sold in a recent month was worth \$570,000, with Great Britain buying over half a million dollars' worth.

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Canada's export of beef cattle to the United States has dropped about one million dollars from a year ago to \$271,000, but to the United Kingdom has risen from \$25,000 to \$468,000.

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There were six thousand more deaths in 1937 than there were in 1936; one thousand fewer births and nearly seven thousand more marriages. This made the natural increase in Canada's population seven thousand less than it was for 1936.

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Fuel prices generally have displayed a moderate but persistent downward movement dating from 1921. The percentage decrease in that interval has been roughly 22 per cent. Coal showed a decline of 22 per cent, wood 30, gas 31 and electricity 7.

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TRADE AND COMMERCE



CANADA

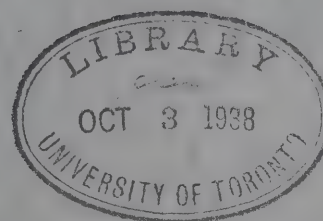
**A FACT A DAY ABOUT CANADA**

**FROM THE**

**DOMINION BUREAU OF STATISTICS**

**MAY 1938**

**FOURTH SERIES**



Published by Authority of the HON. W.D. EULER, M.P.,  
Minister of Trade and Commerce.

Price 25 cents per annum



## Contents

- |      |                                  |      |                              |
|------|----------------------------------|------|------------------------------|
| 213. | Some Odds and Ends.              | 229. | Home a Security.             |
| 214. | Why We Trade.                    | 230. | The Breadwinners.            |
| 215. | Fair Trading.                    | 231. | Secondary Production.        |
| 216. | Building a Great Commerce.       | 232. | Backbone of the Nation.      |
| 217. | Cooperation in Trade.            | 233. | ▲ Fish Story.                |
| 218. | Raising Standard of Living.      | 234. | Fish Played Prominent Part.  |
| 219. | Selling Things Abroad.           | 235. | Fish Systematized Industry.  |
| 220. | Goods from Abroad.               | 236. | B.C. Interior Fishing.       |
| 221. | For Our Breakfast.               | 237. | Transportation Difficulties. |
| 222. | Imported Things in the Home.     | 238. | Some Varieties of Fish.      |
| 223. | Supplying Our Wants.             | 239. | Fewer First Offenders.       |
| 224. | Making a Living in Canada.       | 240. | Canada Leads in Air Freight. |
| 225. | Canadian Families.               | 241. | Quick Development.           |
| 226. | Family Man the Foundation Stone. | 242. | A Brighter Side.             |
| 227. | Empire Youth Sunday.             | 243. | Odds and Ends.               |
| 228. | Guiding Social Life.             |      |                              |

A Fact a Day about Canada

from the

Dominion Bureau of Statistics

No. 213. Sun. May 1, 1938 -- Odds and Ends

An item of interest in our trade with Holland is used sacks. The type of sack principally in demand is the used sugar bag which has been cleaned and reconditioned. The sacks are utilized in considerable quantities in shipping fertilizers, coal, coke, etc.

The authorities in charge of the Empire Exhibition made regulations that all timber used in their own buildings as well as in those of private exhibitors, should be of Empire origin. About ten million dollars was expended on construction and 95 per cent of the timber used is of Canadian origin. This has a further value to Canadian exporters of lumber. For example, the City of Glasgow is planning at present to build one thousand frame houses over a period of a few months. The merits of Canadian lumber have become better known through actual usage and it looks as though the Scottish market is now favourably disposed toward purchasing the Canadian product.

War conditions can do queer things to trade figures. In 1936 Japan sent 243,000 sacks of flour to China but in 1937 she sent nearly  $3\frac{1}{2}$  million. The large increase was due to shipments to North China, undoubtedly for the Japanese army. Canada sent over one million bushels of wheat to Japan in 1937 which was only one third of the export for 1936. The outlook for 1938 is that a preference will be given by Japan to Manchurian wheat as against Canadian and to Argentine wheat as against Australian or American.

Under the Empire Airmail Scheme, letters for Canada originating in South Africa are carried to the United Kingdom by air and thence by boat to the Dominion. Supposing a letter is to go to Vancouver. Should the occasion warrant transmission by air mail in Canada and the United States, the letter would arrive nine days earlier than by surface mail. This time will be still further reduced when the trans-Atlantic service begins.

The output of chemicals and allied products last year was the highest ever reported for this group of products.

No. 214. Mon. May 2, 1938 -- Why We Trade

From the beginning of time men have travelled and traded. They have given gifts and received presents in return. They gave what they had to give and they received in payment the things they had not. Women, too, have travelled and traded. One of the most spectacular journeys in all history was the romantic visit paid by the Queen of Sheba to the Court of Solomon, her train laden with gifts from the jungles of Africa. Laden they returned.

The Phoenicians travelled to ancient Britain to trade the silks of China, the



cottons of India and the frankincense and myrrh and spices of Araby for the tin of Cornwall and the skins of the beasts of the forests.

Just as the Greeks and the Romans travelled abroad for the things that had become necessities to them, and which they did not possess themselves, so the more modern traders in their better equipped craft have sailed to the far corners of the earth carrying with them beads of glass and other alluring ornaments to give to unsophisticated people, and to bring back to their own countrymen, the pearls and the ivory that they craved.

There is no reason in condemning the exchange that was made. If an African chief wanted a top-hat, a gold-laced coat, and a trinket or two, he got value in the pleasure of possession. These things meant little or nothing to the salesman but what did mean a great deal to him and his home people was the tusk of an African elephant, for which the native had no need at all. The African exchanged it gladly for eye-filling ornaments that glittered for him just the same as do the things displayed in a five-cent store to tempt our own children, as well as lots of grown-ups.

Trading at its best is giving to others what they require and getting from them what we need.

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No. 215. Tues. May 3, 1938 -- Fair Trading

Fair trading is a friendly thing. As Mr. Euler, the Minister of Trade and Commerce, said in the opening address of this series: "Trade is not pure barter. Trade to me is a vehicle of good-will, drawing the nations closer together. To me, fair trading and reciprocal commerce are the most powerful influences for peace in the world today, and I believe, that in this respect Canada is exerting a strong influence in the direction of that peace and happiness for which all men of goodwill are striving."

He put it even more emphatically when he said at the annual meeting of the Canadian Manufacturing Association in Toronto: "A freer exchange of goods is a greater assurance of peace than perhaps all the armaments which the nations of the world may establish."

It is quite easy to conceive why fair trading amongst the nations provides friendship. In the daily round of our domestic lives we deal with tradesmen. When we have experienced fair treatment, we like and trust the merchants. We become friendly.

It is with that thought dominant in our minds that we view Canada's trade abroad. At present we are only dealing with what we sell. We are producing and sending to all peoples of the world certain commodities of which we have more than we need ourselves, and which someone other than ourselves will value and cherish.

We talk much about the necessities of life. In a very real sense, necessities are more than food, clothing and a home. We must have some pleasures or we shall become dull dogs. So when we send abroad commodities, we do not think entirely of wheat and oats, nickel and copper. Young as the country is, it is producing things that are rare and pleasurable to possess and while we are sending these things we are creating bonds of real friendship with the buyers.

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No. 216. Wed. May 4, 1938 -- Building a Great Commerce

For a century or so Canada has been filling a very real place in the marketing world. Energy, enterprise and dependability upon the quality of our products have been the characteristics of that international trade. Long before that, it had begun with beaver skins and cod fish, but it was not until the wheat era had begun and the Golden West had lured the homesteaders in their thousands, that Canadian trade abroad took a prominent place in the commerce of the great nations of the world. Canada today is the fifth trading nation, our trade being exceeded only by that of Great Britain, the United States, Germany and France. Canada stands fourth in the volume of exports.

That is a very gratifying fact, fulfilling the hopes and prophecies of the brave pioneers who laid the foundations of this nation.

Canadian trade has been expanding rapidly since the depth of the depression was passed in 1933 and it has been expanding even this year, although we are minus our usual heavy wheat crop to bolster up the figures.

During the first ten months of 1937, Canada's exports have increased over the same period of last year by \$122,000,000. But our export of wheat has dropped by \$69,000,000; if wheat is eliminated from the figures, Canada's trade in other commodities is up by \$191,000,000.

But the missing of that wheat crop has served to emphasize the complex character of Canadian trade, that upon no one commodity are we entirely dependent in order to preserve the relative importance of Canadian commerce. At the present rate of progress Canada, at a very early date, will be back to the two billion dollar standard that was reached in the late twenties, and it is significant in that connection that the prices of many commodities are not so high as they were then.

While all this is encouraging, it is true that international trade is hampered by many restrictions. Before the war and afterwards, tariff rates constituted the chief barrier to international trade. Without entering into the question of the merits or demerits of tariffs, which is a very debatable subject, it is true to say that tariffs were undoubtedly a restrictive influence upon imports.

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No. 217. Thurs. May 5, 1938 -- Co-operation in Trade

In the last few years, two factors have entered into the picture which form as great an obstruction to trade as high tariffs and even those who favour high tariffs are just as strongly opposed to these factors as anyone else.

These two factors are: first, the regulation of exchange under which the sending of money to other countries for the purchase of goods is under strict control; second, the quota system by which a good many countries-- mostly in Europe, but some in South America-- permit only a certain volume of imports. In some cases these restrictions actually nullify trade agreements.

However, there is a tendency now throughout the world to encourage a freer exchange of commodities.



Obviously, low tariffs are of little value to other countries, if governments refuse to provide exchange for payment of goods, or if restrictive quotas are imposed beyond which imports cannot go, and efforts have been made by the Canadian Government to relieve that situation.

This brings forward another matter. It is agreed that the rapid rise of Canada to one of the foremost positions among trading nations of the world is due largely to the knowledge, resourcefulness and courage of her producers and manufacturers, but it should not be forgotten that great assistance has been furnished by the Government of Canada, particularly through the Commercial Intelligence Service of the Department of Trade and Commerce.

There are between thirty and forty Canadian Trade Commissioners scattered all over the world. They are emissaries of good will, highly qualified men who are stimulating Canada's international trade. They collect all information regarding tariffs, taxation and requirements abroad, report opportunities for the sale of Canadian products, make connections between Canadian exporters and the importers of other countries and vice versa. The information collected is disseminated from Ottawa. It is a co-operative system which has been very valuable to this country.

#### No. 218. Fri. May 6, 1938 -- Raising Standard of Living

It was particularly noticeable during the depression years, and even more so as conditions have bettered themselves, that all countries desire to be self-sustaining, not only in food products but also in secondary manufacturing industries. It is a natural desire, which must ultimately affect exports. What then is to become of the great export plants and the producers of commodities which cannot be consumed within the country of production?

The answer to this searching question is also given by Mr. Euler: "It is, and should be, that such countries must raise the standard of living by selling more to their own citizens which in turn implies a greater purchasing power than they have at present."

At the present time Canada's ten leading markets abroad are as follows, in order: United States, Great Britain, Australia, Japan, Belgium, New Zealand, British South Africa, Netherlands, Germany and the British West Indies.

The sharpest advance in our exports recently has been in our dealings with Germany. That trade has gone up almost one hundred per cent in seven or eight months.

It is illuminating to examine what happens to trade when nations are at war. Regular commerce is thrown into confusion. Our exports to China during the month of October dropped 77 per cent, while to Japan they gained 124 per cent. Our trade with Italy has been badly disrupted. In the last few months it has gone down over 40 per cent, but in October it had fallen over 80 per cent. Then there is Spain, torn with civil war. We used to have a nice trade with that country, but in the last two or three months we have not sent one iota to Spain.

This shows what happens to the commerce of a country like Canada when nations go to war, yet Canada is not participating in the conflicts.

No. 219. Sat. May 7, 1938 -- Selling Things Abroad

A word or two about commodities. Wheat is Canada's greatest export but it has taken a serious tumble of late. In the month of October, 1937, for example, the value of shipments abroad was \$13,000,000 but one year previous it was \$29,000,000, yet prices per bushel last year were higher. The October export so far as leadership in money value is concerned, was challenged by newsprint paper which brought \$12,000,000. Of course, this is not a normal wheat year, but the figures bring into relief the enormous strides made by the pulp and paper industry in recent years. The export is steadily increasing.

During the last fiscal year, the world was less disturbed than it is now and our fifteen leading exports were as follows, in this order: wheat, newsprint paper, gold bullion, nickel, lumber, meats, copper, wood-pulp, fish, whiskey, wheat flour, automobiles, furs, barley and cattle.

The outstanding fact is that wheat and newsprint alone amounted to more in value than the next nine commodities combined, gold, nickel, lumber, meats, copper, wood-pulp, fish, whiskey and wheat flour. This shows how much wheat and newsprint mean to Canada in the export market today. They constituted nearly one-third of our total exports last year.

It is impossible to say very much about individual commodities exported, but there is one item in the yearly trade figures that is seldom noticed particularly. It is the export of settlers' effects. The value of these last year was considerably over \$3,000,000. They were the possessions of emigrants who were going to settle in other countries. Canada is giving to the world some of the splendid man-power which has been building up this Dominion. Most of these settlers' effects have gone to the United States, about four times as much as to the United Kingdom. The choice of new homes has been in the following order: United States, Great Britain, Newfoundland, Belgium, Australia, France, British West Indies, British South Africa and Bermuda. The trend towards England has been increasing of late.

There were many adventurous souls who did not carry with them any settlers' effects; almost everything they had was on their backs. They went to almost every country on the globe.

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No. 220. Sun. May 8, 1938 -- Goods From Abroad

Some time ago we had a chat about the immigrants that come from abroad on the great ships that sail the seas. Let us look now at the material things that have been carried in the hold of the ship, or in the strong box in the skipper's cabin. For the vessel has articles that we want, and some of them, possibly most of them, what we actually need.

Cases of black tea from India and Ceylon, along with green tea from Japan and China, are laid ashore. Comparatively speaking, there is not so much green tea wanted in Canada now as there used to be. Black tea is far and away the favourite beverage in this country. It overshadows everything else in the way of a stimulant. But not all of the black tea is coming from Asia. There is a vigorous young population in East Africa, more particularly Kenya, people of the same racial origin as ourselves, who are going ahead at a great rate in the growing of certain things that the world wants. Tea is one of them and apparently the Kenya tea is good. We are



getting some of it.

From Kenya, too, we are getting coffee. It must be good coffee for of late that is where we have been getting a great deal of our supply.

Sometimes the Brazilians burn their surplus coffee in order to keep the price up. Whether that is good business or not you can determine for yourselves. We consume much Brazilian coffee, but the trend recently has been in favour of the product of Kenya and Jamaica. Kenya seems to be especially well situated for the raising of coffee for it borders on Abyssinia. Coffee is a natural product in that country, where it grows wild. For many years we have been getting a small quantity yearly from Abyssinia, and we have continued to get it since the occupation by the Italians. Some particular people profess a special liking for it.

The sugar we take with our tea and coffee is made almost entirely of cane or beets grown in the Empire and we get cane sugar from the Fiji Islands, Australia, South Africa, British Guiana, and the West Indies. The animal charcoal used by the refiners for clarifying the sugar, comes mainly from Egypt.

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No. 221. Mon. May 9, 1938 For Our Breakfast

Coffee makes us think of breakfast and those of us who make this a full meal have an immense variety of imported food to choose from. Grape-fruit and oranges come mainly from the United States but we also get large quantities from Jamaica, Honduras, Palestine, Australia, Japan and Spain.

We import eggs but mostly for the use of bakers and confectioners. For breakfast we prefer one from nearer home, but the pepper with which it is savoured comes mainly from the Dutch East Indies. If imported butter is favoured, it will likely have arrived from New Zealand.

Just at this point, let it be made clear that we are thinking only of imports, of the goods the ship brought us. For the most part we produce our own food. About 80 percent of all Canadian trade is done at home—only about 20 percent of our trade is international.

The canary in his cage is joyously singing his morning song while we are spreading mustard on the bacon. The birdseed almost certainly came from Turkey or Holland and the mustard probably from the same countries.

The spices of China are a delight but we get ginger from Jamaica, nutmeg from other West Indian Islands, cloves from British East Africa and vanilla beans from Madagascar.

A great many people are fond of fish for breakfast. You may get kippered herring from Norway. That country sends us tremendous quantities of sardines also, no less than five million boxes last year. The surprising thing is tuna, which is growing popular. We associate tuna with our own Nova Scotia, but we got one million pounds of it from Japan last year. The tasty onion may have been grown in Egypt or Spain.

We like marmalade with our toast. The imported article comes chiefly from Scotland and the jams from England. Some people go so far as to eat pie at breakfast. Practically all the dates in a date pie are obtained from Mesopotamia. the

figs from Turkey, and the raisins from Australia. The increase in the consumption of Australian raisins in Canada is quite remarkable. These have captured our market.

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No. 222. Tue. May 10, 1938 --- Imported Things in the Home

Talking of fruits, we get some grapes from the Argentine nowadays, lemons from Italy as always, limes from the British West Indies, cherries from Italy, and olives from Spain. Italy and France send us almonds, Italy filberts and hazel nuts, Roumania walnuts. China is the main provider of peanuts for the wide world, but we are beginning to get large quantities from India and the Dutch East Indies.

The table linen the children are warned not to soil, came probably from Ireland or Scotland.

Breakfast is over. It is getting near time for the man of the house to leave for work and he pulls out his watch. It is quite likely to be a product of Switzerland, that remarkable little country that sends its time-pieces everywhere.

Before he puts on his hat and coat, he may have a look around his living room and there he will find that very much of what he and the lady of the house have purchased has come from overseas on board a rusty tramp. The carpet may have arrived from British India, Persia or Turkey, the mahogany of the furniture from the forests of Africa or Honduras, the oak from the United States, the glass from Belgium, Czechoslovakia or Japan, the embroideries from France, Germany or China, although many are also sent here by Switzerland and Czechoslovakia. Much of our imported furniture is got in France, Poland, Germany and Japan. Quite likely the clock was made in Germany.

Well, it is time to go. As he pulls on his calf skin gloves he can reflect that the material, no doubt, was from New Zealand, the straw mat on his verandah from Japan. He lights his briar pipe, the root of which was grown in France, but the wooden match he uses is Japanese, not the Swedish he was once accustomed to. The fuel in his car will be from South America if not from the United States. Peru, Venezuela and Colombia are important contributors; occasionally we receive some petroleum from Trinidad.

At home the domestic duties are in full swing. A bottle of furniture polish is opened. The cork is made of soft spongy bark that grows on the trunk of a particular oak tree indigenous to Portugal and Spain. The cleaning of the carpets and floors, even the ceiling and walls, might be done with electrical implements from Sweden.

The clothes cupboard has had to be overhauled to see if moths have made their appearance. Camphor to keep them away is laid here and there. Germany and Japan supply us with a good deal of that camphor.

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No. 223. Wed. May 11, 1938 -- Supplying Our Wants

As the lunch hour approaches the lady decides to spruce up a bit so as to appear at her best when her spouse arrives home. The pumice stone which removes the worst stains from her hands is almost sure to be volcanic lava poured out of some Italian crater. The soap may be made of olive oil, also from Italy, palm oil from British Malaya and Nigeria, or cocoanut oil from Ceylon and the Phillipines. If by any chance the lady's pearly white teeth are artificial, they may have come from Palestine or Germany. Her cosmetics, if she uses any, may have come from France.

Luncheon is a light meal and some canned meat is served. If it is beef, the likelihood is that it will be the product of Argentina or Uruguay. The fresh tomatoes have been shipped from the West Indies or Mexico.

A word might be said about the china tableware. Apart from England it comes chiefly from Japan and Germany, while the glassware is largely the product of Czechoslovakia.

A birthday is not far away and a trip is made down town to see what can be got for the children. There are toys in abundance, a huge tempting array, far and away beyond what was on display years ago. They are very beautiful, many of them gim-crack affairs, of course, that will not last any time at all, but a great many of them solid serviceable articles. The dolls and toys are for the most part from Germany and Japan.

So that there will be no misconceptions as to what has been said in the foregoing, it should be pointed out very definitely that most of what we import comes from the United States and the United Kingdom. Indeed, about three-quarters of our total purchases are made in these two countries.

No. 224. Thurs. May 12, 1938 -- Making a Living in Canada

There are more than eleven million individuals in Canada, and there are about two and a quarter million families. These eleven million people have to be fed, clothed, housed and entertained, to say nothing of all their other manifold demands and requirements. The family budget has to be balanced. It takes money to do that-- money or its equivalent. It takes far more money now than it did a generation ago. We also use money as an exchange a good deal more than we used to do.

Money is paid for work done and, if people are to live comfortably and happily, they must render efficient economic services and get paid adequately. The vast majority of men are constrained to earn their bread by the sweat of their brow. Services rendered may be in the form of labour, management or the furnishing of capital. We are speaking just now of the hard-working men, not the lazy men, not the parasites, not the unfitted.

The sum total of compensation received by individuals for their productive services constitutes what is termed national income paid out. Business enterprises transform the efforts of individuals into marketable commodities or services and pay the individuals with salaries, wages, in money or in kind, dividends, interest, rent and other types of income payments.

The commodities created and services rendered last year were valued at about four and a half billion dollars or slightly over \$400 per capita.

That is an estimate based on statistics and it is probably close to what an actual count gathered by a national census would reveal. It provokes the thought that, although the per capita income is \$400, not all of these eleven million people earn wages. There are the dependents, mainly women and children. They cannot earn, and so the father of the family has to be remunerated sufficiently to enable him to provide for the rising generation. It is the responsibility not only of the father but of society in general.

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No. 225. Fri. May 13, 1938 -- Canadian Families

There are about two and a quarter million families in the Dominion. That statement requires a little explanation. There are families without children. A typical case of a family without children might be a brother and two sisters living together, none of them perhaps contemplating matrimony. Many families are composed of a man and wife without children. There are a good many others who have adopted children. There are widows with children.

However, as in practically all countries of the world, the typical Canadian family is the father and mother with children in their home, the father the breadwinner. There are nearly one and a half million such homes in the Dominion. In 57,000 other homes where there are children, the mother has gone to her eternal rest and the father is carrying on alone as best he can.

There are 182,000 homes in which there are children but no husband and father. What tragedies they represent! Most of them are widows who have been left to bear the burden after the man of the house has passed on. Some 40,000 women also are caring for the families while the husbands are away. A proportion of these husbands are deserters but in the main they are men whose duties call them to far fields of endeavour. Sailors on tramp steamers are sometimes away for years, prospectors, representatives of great business firms, engineers, even missionaries to dark lands. Many occupations make it impossible for fathers to take their little children along with them in their travels. There are seventeen thousand mothers who are not at home. It would require a special inquiry covering all the individual cases to determine the cause, but many, no doubt, are neglecting their responsibilities.

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No. 226. Sat. May 14, 1938 -- Family Man the Foundation Stone

As the family goes, so goes the nation. All those people who have families to support may be regarded as having the greatest responsibility in the economic life of the country. It is up to them to see that the generation to take their places, when they lay themselves down, is properly fed, clothed, housed and educated. When all is said and done, the family man is the rock upon which the state is built. He is the foundation stone. Therefore, it is important to know by what avenues of work most of them earn their daily bread.

Food is our greatest necessity. Almost thirty per cent of what we earn is spent on food, fifteen per cent on maintenance of the home, and eight per cent on clothing. Considerably more than half of what we earn is expended on these three items alone, which demonstrates clearly and conspicuously the importance to the community of the man who marries and creates and maintains a home. Our domestic commerce, even our



international commerce, grows measurably with the proper growth of the population the family man makes possible.

Where, you ask, does he get the money to keep his family?

Where is the young man starting out in life most likely to get the employment which will enable him to build and support the home that it is the hope and the right of every decent man to possess?

Here is the picture. Canada may be regarded as a great estate, blessed with natural resources of which a complete inventory has not yet been taken. The land suitable for agriculture amounts to 360,000,000 acres, a vast garden from which to fill the storehouse of the people. There are huge forest areas. Canadian mines produce most of the important metals and minerals we need, the only really notable exception being tin. The factories of Canada number over 25,000, and they include work and duties of almost every conceivable kind. Fur animals and fisheries are valuable. Water power is abundant. Transportation assets meet the difficulty of great distances and the barriers of nature. Capital has been forthcoming to develop natural resources and supply the needs of the population.

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No. 227. Sun. May 15, 1938 -- Empire Youth Sunday

Today is Empire Youth Sunday. The movement began with the Great Rally of Youth which took place in London at the Coronation of King George the Sixth a year ago. That rally brought seven thousand children delegates of the Empire together in one congregation. Three hundred school children went from Canada and amongst them was a young Indian girl, O-Muk-A-Pinni, of the Blackfoot Nation.

There was no regimentation of youth yesterday such as has become the habit in totalitarian states, but a free outpouring of the soul of democratic young people, bound together by the powerful yet invisible ties of brotherhood within the great British Empire. The hope is that it will eventually bind together the youth of the world. There are no insular prejudices nor nationalistic intentions in the movement.

The field for such a movement is tremendous. Take Canada alone. Today with a population of about 11,200,000, the number of young people under 20 years of age is 4,665,000. Actually considerably more than one-third of the people of this Dominion are under 20. Statistics from the various countries of the British Empire show that the total population which lays fealty at the foot of the Throne is close to 500 million, or approximately one-quarter of the population of the whole earth.

Youth under 20 years of age in the British Empire, according to the various censuses, all taken a few years ago, numbers upwards of 195 million, and very probably is today just verging on the 200 million mark. What an empire of youth that is! The world has never seen its like.

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No. 228. Mon. May 16, 1938 -- Guiding Social Life

Perusal of the most recent available statistics of criminal and other offences in Canada indicates quite emphatically some comforting things which place a hall-mark upon the efforts which have been made to guide the social life in Canada. There is nothing perfect, of course, under the sun, nor can human beings be made perfect any more than the machinery which men make can be described as flawless. In the Christian philosophy there has been only one perfect man and only one perfect code of righteousness. Even men who "walked with God" have had their failings and great and wise religionists have differed in their interpretations and applications of the Divine Law. Not everything we have done, therefore, has been just right.

In this Dominion, if there is one thing more than another which stands out clearly as a national ambition, it is the desire to build up communities of well-educated people. Go over the records and consult the sayings that have come down to us from the earliest settlement of the French in Canada and you will find that the need of education and the steps taken to give children and young people a scholastic training have ever been in the minds and dominating the purposes of most of the leading men who have fashioned the country.

That high purpose persists and possibly, outside of the educational associations themselves, there is no organization which has a better opportunity of observing the effect of it than the Bureau of Statistics. We see it everywhere-- the desire to teach and the desire to learn. We see it in our more intimate and personal social relationships. Rarely is the man or woman to be found who does not exhibit a dominant purpose to equip the children with an education to fit them to fight the battle of life well, and to live the decent and respectable lives that an educated people seeks.

What success have we gained, we ask. Is there any proof, definite and incontrovertible, that can be produced to show that the spread of education and educational influences have had a good effect upon the population, generally speaking?

We cannot measure this sort of thing. A more enlightened and better educated popular opinion is no doubt contributory to the improvement in our national life.

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No. 229. Tues. May 17, 1938 -- Home A Security

There is a great security in marrying and building a home. After all, that is the foundation of good society. But it brings the reflection, mentioned some time ago in a Bureau broadcast, that if all the unmarried men in Canada wanted to marry a Canadian spinster, there would not be enough young ladies to go round. We would have to get them from some other country.

That makes more vivid the historic picture of the arrival at Quebec of a number of girls from France, destined to marry lonely habitants. That was when the country was very young. Knowing what we do now from the criminal records, that picture takes on a deeper meaning. Matrimony is the normal and fuller life. It brings a greater understanding.

There is still another comforting thing in these criminal statistics which ought to be noted. Serious crimes by juveniles are decreasing. Although there is an increase in the latest figures of over three per cent in minor offences, there is a



decrease of ten per cent in major delinquencies. Theft was by far the most common of the serious crimes. Three out of every five were convicted on that score.

Just as in the case of first offenders amongst the grown-ups, so also among juvenile delinquents a decrease of ten per cent in convictions is a most encouraging situation and, while there are many good influences which deter children from backsliding, such as the home, the church, clean sport, better housing, better surroundings and healthier amusements, and saner courts, much of the credit must be given to the schools, the teachers, the wise school boards, and it should make us pause to reflect whether we, who supply the funds to make a broader education possible, are at all times considerate in our judgment of our educational system and those who carry it into effect.

One more fact before we close. Certain crimes are on the decrease in Canada. Notable amongst these and <sup>one</sup> which has proven to be the latest most serious menace to life and limb is driving a motor vehicle while intoxicated. This shows that the steps taken by the authorities to combat this evil have had good results. Traffic convictions generally show a decrease.

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No. 230. Wed. May 18, 1938 --- The Breadwinner

The breadwinners of Canada may, for the sake of convenience, be divided into three classes-- the primary producers, the secondary producers and the growing community engaged in the rendering of services of different kinds.

The primary producers are engaged in extracting goods from the resources supplied by the bountiful hand of Providence. Agriculture bulks large in the economic life of Canada but the value of farm products in the course of a year is less than the net output of our manufacturing plants. Last year, the value of the agricultural output, after deducting the value of seed and feed used, was about three-quarters of a billion, or one-sixth of the entire national income of Canada.

To produce that huge amount of money value, more than seven hundred and thirty thousand farms were operated and the people living on these farms numbered considerably more than one-quarter of our entire population.

While the value of the output of the mining industry is less than half that of agriculture, the industry is growing fast and bids fair to become of even greater relative importance than at present. Most of the principal metals and minerals are produced in large quantities far in excess of domestic requirements. High grade iron ore has not yet been located in Canada but the Helen Mine at Michipicoten Island in Lake Superior has been re-opened upon the payment of a subsidy. The steel industry of Canada at present is supplied with iron ore from the Island of Wabana, off the Newfoundland Coast, and from the Mesabi range in Michigan.

Coal is also imported, the immense resources of Canada not being conveniently located to supply the industrial areas of the central provinces. The Sullivan Mine in British Columbia is one of the great lead-zinc properties, and the Sudbury district is the source of the greater part of the world's supply of nickel. Kirkland Lake and Porcupine are heavy producers of gold, but many other districts are participating. No fewer than seventy-five new gold mines commenced production last year.

The total value of ore and other unmanufactured mineral products last year was about \$180,000,000 and the employment about 70,000. The miners and their dependents, together with those engaged directly in necessary services, would make a community exceeded in population by only Montreal and Toronto.

The lumber industry is replete with romance, the trees of Eastern Canada having supplied the masts and spars of the British navy at the time when the foundations of Empire were being laid. The shipbuilding industry of the Maritimes was made possible and Canadian-built vessels penetrated to the farthest corners of the world. The export of lumber to the British and American markets helped to maintain our external credits when borrowings were heavy.

The output of logging operations last year was less than in mining but as a source of employment it was of much greater importance. The total value of unmanufactured forest products was about \$115,000,000 and the employment about 80,000. The fisheries and allied industries required the services of 77,000 men.

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No. 231. Thurs. May 19, 1938 -- Secondary Production

Secondary production provides some interesting facts. The manufacturing group is head and shoulders above any of the primary groups. Canada has been rapidly industrialized since the first of the century, and the value added to raw materials by the manufacturing process is now around one and a half billion dollars in a year. This large amount remains after deducting the cost of the raw materials from the gross value of the products.

Specialization has been carried far. Many of the processes performed in the home or on the farm at the time of Confederation are now carried on in the factory with the use of efficient machinery, driven by electricity or steam or internal combustion engines. The mills and factories of Canada employ close to six hundred thousand persons.

The services include a great variety of workers, from professional men to domestic help. No fewer than 200,000 females are engaged in domestic services. That is a very large number, about one quarter of all female employment, yet, pro rata, it is much smaller than in England and some other countries. Clergymen, physicians, lawyers, musicians, teachers, statisticians, bankers, soldiers, nurses, civil servants, and a host of people of other occupations all come within the service class, each of which, along with the primary and secondary producers, plays an essential part in the composite social and economic life of the nation. Interlaced with all is the capital structure.

Looking over the census figures of 1931 we find that there were over two and a half million persons employed and earning an income, whether large or small. The average earnings of males in a year worked out at \$927 and of females \$559. Nine hundred dollars or so will not go very far in the support of a wife and children in a Canadian city these days, but five hundred and fifty dollars is not so poor an income for a young girl worker whose abode may still be the family home.

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No. 232. Fri. May 20, 1938 -- Backbone of the Nation

Besides the two and a half million workers who constitute nearly one-quarter of our entire population, there are four hundred thousand employers of labour and six hundred thousand other persons who are engaged in business on their own account.

Generally speaking, it may be said that income is the remuneration which anyone receives for his co-operation in the general process of production, and the total income of the community is equal to the sum-total of the remuneration received by all those participating in that process-- labour, management, and capital investment. The income is thus equal to the total value of what is produced in goods and services.

In Canada, as we have seen, there are far more people engaged in agricultural pursuits than in any other occupation. There are nearly 1,160,000 persons participating in farm work, which is getting close to double the number engaged in manufacturing, although the factories produce goods which have a greater marketable value than the products of the farm.

Because agriculture takes care of far more people than any other business, may it not be stated truthfully that it is still Canada's basic industry and quite likely to remain so for a long time to come. The business of agriculture is national business, to which every man, woman and child has some personal and vital relation. The farmer is the backbone of the nation.

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No. 233. Sat. May 21, 1938 -- A Fish Story

Not long ago the Canadian Press sent over the CBC network a rousing story-- rousing to fishermen at least. It came from New Westminster, British Columbia. It was to the effect that local fishermen had caught in a net a giant sturgeon weighing over 700 pounds. Three hours of strenuous exertion were spent before they succeeded in bringing the monster fish to land. Fancy this-- three sturgeon like that big fellow would weigh more than a ton. Some catch!

The fact that it was a sturgeon that broke into the news makes the incident all the more interesting, for sturgeon is a "royal fish". About nine hundred years ago when Edward the Second was King of England an act of parliament constituted the sturgeon a "royal fish" belonging to the sovereign, although the Lord Mayor of London claimed as his own, such sturgeon as were taken from the River Thames above London Bridge. Apparently royal people and civic dignitaries each had a fine taste in fish, even as we have today. Sturgeon makes a dish fit for any king's table or even the board of a mayor.

Until the remarkable story about that British Columbia fish came along, our ideas of sturgeon were more limited. It had been described to us as a native of both sides of the North Atlantic. There were about twenty species and these varied in length up to over twenty feet. The largest were said to occur in the Caspian Sea, the Black Sea, the Danube, etc. The compilers of school books will now have to make some changes, for if ever a sturgeon has been found in Europe bigger than that British Columbia sample we have not yet heard of it.

Here are some things we know about sturgeon. It is a bottom fish and obtains its food by grubbing with its long powerful snout in the sand and mud. There are fresh-water and sea-water sturgeon, but most of those caught in Canada appear to be

of the fresh-water type.

Years ago, when the Ottawa River was a great fishing ground, the sturgeon was a common sight of a morning on the local market. But the sawdust from the mills killed them off as it did most of the other fish. The sawdust got into their gills and drowned them. The bed of sawdust on the bottom of the lordly Ottawa River was almost unbelievably deep. On one occasion, when explosions in the river had become frequent and the scientists were called upon to explain, it was found that near the outlet of the Rideau Canal the bed of sawdust was about forty feet thick. This illustrates what the march of progress will do to fish when refuse is dumped into lake and river. Steps were taken to avoid the destruction in future, but the damage had been done--not irreparable is our hope.

The catch of sturgeon in a year is worth to the fisherman around \$90,000. The fish is usually marketed fresh, although excellent smoked sturgeon is occasionally on sale in the cities. The roe makes caviare and the air bladder is made into isin-glass.

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No. 234. Sun. May 22, 1938 --- Fish Played Prominent Part

Recently we were talking of fur and the prominent part it had played in the building up of this Dominion. The statement was made that no finer fur was to be found anywhere; our climatic conditions have made possible the finest of furs. What about fish? These same conditions have given us the firm fish flesh that the world demands. Let us see what fish has done for Canada.

What we moderns call a fish story is by no means a recent invention. When John Cabot returned to Bristol, England, in 1497 he reported he had found cod fish so plentiful that they could be caught by lowering baskets in the water. A stone was attached to the basket to make it sink. The next year John Cabot's son Sebastian told the people in his home town that the cod were so thick they "sometimes stayed his ships".

Whether that was an exaggeration or not we have no means of measuring, but it will not appear to a British Columbian, accustomed to the extraordinary salmon runs in his rivers, to be anything out of the way. However, that it impressed all and sundry is plain, for the French, the Spaniards and the Portuguese, great sailors and great fishermen all, began to frequent the Grand Banks. Cape Breton, which we associate today with Scottish Highlanders and Jacobite airs and conversation in Gaelic, is one of the earliest place names in America. Cape Breton takes its name from these early French fishermen. Yet there is something very appropriate in it, for the alliance between the countries of their forbears was an ancient and historic enterprise in successful treaty making.

The Spaniards and the Portuguese were very little behind the early French fishermen. Fernandez de Navarrete mentions all three as frequenters of the "Grand Bank" before 1502. The fishing was by hand lines over barrels made fast to the bulwarks to prevent fouling. The vessels remained during fine weather until they had from 30,000 to 50,000 cod in their holds.

Voyages along the coast soon showed the cod to be as plentiful inshore as on the outer banks, and it became common for a crew to anchor in a bay, erect a hut on shore and make daily excursions to the fishing grounds. That was more comfortable



than being cooped up for months in a little ship. On shore they salted and dried the fish and at the end of the season shipped it to France.

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No. 235. Mon. May 23, 1938 --- Fish Systematized Industry

When Jacques Cartier made his famous voyage up the Saint Lawrence in 1534, he found traces everywhere of these early fishermen which the teeming cod had tempted thousands of miles from home.

Bye and bye the fishermen began to stay all winter and thus to erect permanent settlements. That was shortly before the union of the Crowns of England and Scotland, so it is an ancient industry and an ancient export. In fact, fishing may be regarded as the first industry to be systematically prosecuted in what is today the Dominion of Canada. Since that time it has never ceased to yield a regular harvest to the people of both Europe and America. The harvest of the sea has given historians and writers of romance those enthralling stories that are treasured on the bookshelves of Canadian homes.

But wars came--- those horrible wars that devastate lands and destroy good people. Canada, even then so much farther away from Europe than it is today with our fast services by steamship, aeroplane, radio and telegraph, was caught in the meshes. There was sadness in the Maritimes. At the close of the Seven Years' War the Robin family came up from Jersey and gradually acquired the former French fishing stations. Until the arrival of the United Empire Loyalists all other fishing except for cod was neglected. Inshore fisheries alone, including those of the Coast of Labrador, were developed during this phase of the industry. No deep-sea fishing vessel put out from Lunenburg until 1873.

Lunenburg is now the chief centre of the deep-sea fishery and during the last half century it has established a name and a fame that are world wide. The ships and the men are known wherever sailors congregate. A large proportion of the people are of the very best German stock.

That is the story of the beginnings and early development of Canadian fisheries, but it is only a preface to the modern tale. Our Atlantic fisheries remained the most important from the point of view of aggregate value until the closing year of the Great War. Other Dominion fisheries had been growing apace. There were the inland lakes and rivers and the great waters of the Pacific Coast to be exploited.

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No. 236. Tues. May 24, 1938 -- B. C. Interior Fishing

In British Columbia there is the interior fishing region which corresponds in the main to the Prairie section. In the early history of the Province it is doubtful if the fur trade, which opened the door to later enterprise by way of the Rocky Mountains, could have established its footing but for these fisheries. British Columbia contributes approximately two-fifths of the marketed value of the fish production of Canada and has built up a trade which reaches to the ends of the earth. The great wealth of that trade is in the estuaries of the Fraser, Skeena, Naas and other rivers. Salmon is the fish that has produced the greatest wealth. Every species of

this king of food fishes known to the waters of the Pacific is to be found on the British Columbia coast. There are the sockeye, the spring, the coho, the pink and the chum.

The sockeye, though not taken in such great numbers as the pink and chum species, is by far the most important, owing to its deep red colour and excellent texture. On that account there is a keen demand for it in the markets of the world. The yield varies to a considerable extent from year to year. The spring salmon is a much larger fish; it was the first species used in the United States for canning.

Many of the people engaged in the salmon fishery are Chinese, Japanese and Indians. The Chinese find work mainly in the canning factories and the Japanese and Indians in the fishing operations.

The fresh water fisheries of Canada are also of very great importance and bring the reflection that they did much to make possible the settlement of the country in the early days. The lakes of the West repeated the part which the St. Lawrence played in the days of the French regime. Just as the cod banks did to the Maritimes and New England, the western lakes and rivers assisted settlement by providing a much needed food supply for the early arrivals.

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No. 237. Wed. May 25, 1938 -- Transportation Difficulties

All our fish resources have not yet been made available commercially. The difficulties in connection with transportation have not been surmounted. Some of the greatest lakes of the Continent, such as Reindeer, Great Slave and Great Bear, and hundreds of smaller bodies of water, are still beyond reach, from a marketing point of view.

The season on the Great Lakes lasts from six to eight months and, although fishing through the ice is followed by many people, a large number depend upon miscellaneous employment between the seasons. In many parts of the country the little shacks away out on the ice are familiar sights during the months of winter cold.

These inland waters provide us with a great variety of fine fish. The angler is forever telling us about that wonderful basket of brook trout he caught last summer, and the six pound black bass he played for an hour and then lost when an old stump caught his line. Yet when the housewife is thinking of the family board, her mind turns to the whitefish, trout, pickerel and lake herring she gets from Ontario, with an occasional pike and sturgeon for variety. Quebec provides us with eel, pickerel and sturgeon. Moving to the Prairie country we get whitefish and pickerel also, but pike, tullibee and goldeye are common. North of the Saskatchewan whitefish are got in large quantities.

When we were talking about the sea waters of the Maritimes and British Columbia we mentioned cod and salmon only. But it is from these tidal waters that we obtain the greatest variety of fish food. Halibut abounds off Vancouver Island and between the Queen Charlotte Islands and the mainland. Every fish shop in central Canada has halibut for sale. To capture 30 million pounds in a season has been quite common. A treaty has been entered into between Canada and the United States for the conservation of this fishery.

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No. 238. Thurs. May 26, 1938 -- Some Varieties of Fish

Now, here is a peculiar thing. When we talk of herring we naturally think of herring from the East, and there is a reason for that, yet considerably more than half of the total sea-herring catch of the Dominion is taken in British Columbia waters. Why don't we get Pacific Coast herring as well as the Atlantic product? Simply because, according to the Department of Trade and Commerce, practically the whole of the British Columbia catch is dry-salted for export to Japan and China.

Pilchard, a toothsome morsel, is much favoured, but the greater part of the catch is being used in the manufacture of oil and meal. There are also black and ling cod on the Pacific, oulachon, flounders, skate, soles, clams and oysters. The whaling industry, which at one time centred in the North Atlantic, has moved to the Pacific. There are two stations on the Queen Charlotte Islands. The hunting is done with guns-- a system that was introduced from Norway. Every scrap of the whale is used for some purpose.

On the Atlantic Coast the variety of fish is very great. We get halibut, haddock, herring, mackerel, smelt, sardines, lobster and oysters. The estuaries and inland waters are sometimes considered as distinct. Add them, and we get salmon, shad, alewives, the striped bass, tom cod and maskinonge.

The vessels, built at home by men who know how to build, and manned by sailors who have no superior, frequently stay at sea for months at a time. When they return, the fish, which have been split and salted on board, are taken ashore to be washed and dried. The West Indies provide the chief market for this product. No cod-fish in the world stands the tropical climate so well as that cured by the fishermen of the Maritime Provinces.

Lobstering is a distinctive industry. A normal catch is 30 million lobsters, and the annual harvest shows no decline. The canning of sardines in New Brunswick is comparable in importance with the lobster industry. Occasionally there are years in which they exceed lobsters in value. These sardines are really young herring and are very delicious.

Oysters, once plentiful everywhere, are now found in diminished quantities but there are hopes that, under careful conservation and skilful oyster-farming methods, the oyster in the Maritime Provinces will regain its lost place in Canadian commerce.

The domestic consumption of fish, only about 21 pounds per capita in a year, is relatively small and the trade has to depend largely upon foreign markets. From 60 to 70 per cent of the annual capture is an average export, of which the United States takes approximately one-third and the United Kingdom one-fifth. There are upwards of 80,000 persons employed in the Canadian fisheries.

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No. 239. Fri. May 27, 1938 -- Fewer First Offenders

Examine the statistics of convictions for the more serious criminal offences, usually called indictable offences, during the past five years-- which is a quite long enough period to enable a conclusion to be reached. You will find that in the records of the courts, there is now a smaller percentage of first offenders than there was five years ago, the percentage of second offenders was just about the same. But the percentage of "repeaters", those who have been convicted on three or more occasions has increased quite noticeably. That is what is known technically as recidivism.

It is very remarkable that the percentage of first offenders is smaller than has ever been noted. It is nine per cent smaller than it was five years ago, which is a very emphatic indication of the trend.

It would not be fair to say that the lack of a good education was the entire cause of the lapse of a vast majority of the convicted. The home has its influence also, and as well, some natures are inherently bad. Even recognizing that, it is evident that the theory that a good scholastic education is a preventive of crime is not unfounded. The figures are irrefutable.

There is another matter revealed by statistics which may not be quite so clear in its application, although on the face of it, the suggestion is unmistakable. Married people are much more likely to keep within the law than the unmarried. We are not dealing with juvenile courts in these remarks.

The chance of a married person committing one of the most serious crimes is far less than that of an unmarried man or woman. Broadly speaking the number of unmarried persons who do those very evil things that land them on the scaffold, in the penitentiary or in the jail, is almost two to one. The lesson is obvious.

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No. 240. Sat. May 28, 1938 -- Canada Leads In Air Freight

You will remember the "Trail of '98", the tale of the gold rush to the Yukon. If you are not old enough to remember it, you must have read, or should have read, the thrilling book that was written by Robert W. Service, the Scottish poet, historian, novelist and adventurer. Happily, he is still with us and consorts every now and again with the life-long friends he made in that historic trek to the El Dorado of the North.

No tale of the Canadian North will ever again be possible in the same setting, for times have changed. Sleigh dogs, pack ponies and canoes are being replaced by much faster means of transportation. We no longer need to travel slowly in discomfort and hardship for months seeking fame and fortune in a new mining field. We can fly. We can get to our destination in a few hours, the rough ground and virgin forests underneath are just a moving picture. Should the boom last only a short time there's always the hope of getting out again.

Canada is air minded, tremendously so, and it is perhaps as good an illustration as we have, of the thorough business instincts of Canada's pioneering spirits, that we have progressed in our conquest of the air by self-sustaining methods. We have proceeded along sound business lines.

Our city dwellers, particularly in the East, are probably scarcely conscious of the vast and swift progress the Dominion has made in aviation. You really have to be near the airways in the North to appreciate thoroughly what is going on. Inter-city services have not been developed in Canada to the extent they have been in most other countries, although many of these foreign services are still far from being self-supporting. They were established for the rapid transportation of mails, express and passengers and their operation has been possible only by generous subsidies.

This Dominion, however, was fortunate in having specially favourable conditions for aviation. There was a fertile field for the development of a self-sustaining



civil aviation in the vast hinterland, north of the railways, where aircraft could play an important part in exploration, survey and transportation.

That tremendous area contains innumerable lakes and some of the great river systems of the world. These provide ready-made landing places for seaplanes in summer and ski planes in winter, so that no expensive aerodrome systems are necessary. To this field the efforts of Canadian aviation turned after the Great War and inter-city services were allowed to await the growth of public opinion and the progress of aeronautical science in the development of aircraft suitable for such service.

The result has been that Canada today leads the world in the carriage of freight by air. Operating chiefly in the mining areas, Canadian lines are transporting around 25 million pounds of freight in a year, consisting largely of machinery, fuel oil and supplies. The air mail has grown tremendously. More than 100,000 passengers are carried, and it is significant to note that the gross operating revenues are considerably greater than the operating expenses.

#### No. 241. Sun. May 29, 1938 -- Quick Development

Ten years ago Canada began to feel the effects of the building of the airway system of the United States. Connections with it had been established in the Maritime Provinces, at Montreal, Toronto, Windsor, Winnipeg and Vancouver. At these points of contact, high speed traffic passing through Canadian channels was diverted south to the airway system of the United States with consequent loss to Canada. Watching the trend of the times, the Canadian government decided that surveys for the construction of a transcontinental airway serving the principal centres of industry and commerce, could no longer be delayed.

When the various construction programmes now on hand are completed, Canada will have a cross-country airway system equal to any in the world. It will serve all the leading industrial centres of the Dominion and its effect upon the social, political and commercial life of the country will be very marked. The conquest of distance is drawing people closer and closer together. Our trans-Canada service will connect with the trans-Atlantic and trans-Pacific airways. Trans-Canada Air Lines, the national operating company, is functioning. It will be a direct participant in the trans-Atlantic system.

Besides the aircraft which are manufactured in Canada we are importing many. Last year we got 77, of which 59 came from the United States and 18 from Great Britain. We got fewer from Great Britain than we did in 1936 and the reason will be quite obvious to those who follow the doings in the great world outside us.

In the British Isles the aircraft manufacturers are in the midst of a strenuous campaign to build a fleet of fighting planes which will be capable of defending hearths and homes against possible or probable invaders and at the same time take care of the huge Empire which the genius for colonization of the British people created, fostered and developed.

Which brings to mind the realization that villains, intoxicated by the desire for slaughter, have abused the aeroplane instead of applying it for civilized ends. There is the further thought that sometimes we hear the scientist and the builder of aircraft condemned. Ramsay MacDonald, the great pacifist, made this remark not long before he died: "The action of the farmer in growing corn and food for war was exactly of the same kind as that of the engineer who made flying machines."

No. 242. Mon. May 30, 1938 -- A Brighter Side

There is a much brighter side of the picture than the devastation of human life. It is the Canadian aeroplane on its errand of mercy. During the past few years, under the services rendered by the Indian Affairs Branch, many of the reserves in the out-of-the-way parts of Canada have been visited by plane. Medicine and supplies were flown in and sick and injured brought out to hospitals.

A complete diagnostic outfit, including an X-ray and electrical generator to operate it, was installed at the residential schools of Lac la Ronge and Beauval away in the north of Saskatchewan. It was taken there by aeroplane from Prince Albert. This new clinic of the air will be of great assistance to the 500 doctors and dentists whose task it is to protect the health of about 115,000 Indians who live in some 800 separate communities of the Dominion.

No, there will be no more episodes like the "Trail of '98". Instead there is the romance of the young missionary flying to his post in the Arctic, the prospector hopping off to an area which modern science has told him holds the metal he seeks, the schoolmaster, on fire to teach and the Mounted Policeman, on the way to his lonely vigil to keep law and order in the far places.

It is a thrilling story dreamed of many years ago by Jules Verne who built, in his great mind, "The Clipper of the Clouds". The dream of Verne was not just another "Castle in Spain".

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No. 243. Tues. May 31, 1938 -- Odds and Ends

Imports of coal dropped 13 per cent during the first quarter this year. Imports from Great Britain declined 6 per cent and from Germany 43 per cent. Receipts from the United States were 13 per cent lower.

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Hong Kong sent us one thousand dozen eggs in the shell in May and China sent 167 dozen. Canada's trade with China has been a good deal disrupted because of the War.

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Over 418 million pounds of Canadian newsprint was exported to other countries in May. The United Kingdom, the United States, Australia, Argentina and British South Africa were the main purchasers.

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There was \$359,000 worth of jewellers' sweepings exported from Canada in May. About two-thirds of it went to the United Kingdom and the rest to the United States.

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Of the four million dollars' worth of meats exported in May, the United Kingdom took over  $3\frac{1}{2}$  million.

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The farm population of the three Prairie Provinces in 1936 was over one million. There are over 26,000 permanently hired men on Prairie farms.

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Canada. Statistics, from June 1938

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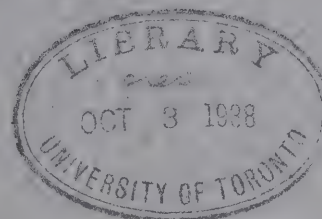


CANADA

**A FACT A DAY ABOUT CANADA**  
**FROM THE**  
**DOMINION BUREAU OF STATISTICS**

**JUNE 1938**

**FOURTH SERIES**



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Published by Authority of the HON. W.D. EULER, M.P.,  
Minister of Trade and Commerce.

Price 25 cents per annum



### Contents

- |                                    |                                       |
|------------------------------------|---------------------------------------|
| 244. Canada's Folk-Songs.          | 259. Agriculture in Canadian Schools. |
| 245. Mining and the Farmer.        | 260. Canada's Newest Highway.         |
| 246. Peaceful Purpose of Nickel.   | 261. Treasure Hunts.                  |
| 247. Racial Origin of Canadians.   | 262. Father's Day.                    |
| 248. Birthplace of Population.     | 263. Business and Education.          |
| 249. Changing Structure.           | 264. Teachers' Salaries.              |
| 250. Sex and Age.                  | 265. Psychology and Salaries.         |
| 251. Marked Differences.           | 266. Rabbits and Other Things.        |
| 252. Conjugal Condition.           | 267. Odds and Ends.                   |
| 253. Immigrant Stock Distribution. | 268. Millionaire Fish.                |
| 254. British in Ontario.           | 269. Odds and Ends.                   |
| 255. Increase in Foreign Born.     | 270. Tapping Canada's Vast Resources. |
| 256. Urban and Rural Distribution. | 271. Home-Grown Sweaters.             |
| 257. Segregation.                  | 272. Youth Training Programme.        |
| 258. Intermarriage.                | 273. A New Beaver Sanctuary.          |

## A Fact a Day about Canada

from the

Dominion Bureau of Statistics

No. 244. Wed. June 1, 1938 -- Canada's Folk-Songs

Canada is mindful of her past. An evidence of this happy retrospection is the possession of the largest collection of recorded folk-songs in North America. They are filed away in the National Museum in Ottawa, where seven thousand cylindrical recordings preserve the lilting songs. The lyrics are set down in books, the double task having been undertaken by Marius Barbeau and Diamond Jenness, anthropologists at the National Museum, and some of their confreres.

A world-wide revival of folk-songs in the repertoire of musicians is being in evidence daily, the anthropologists say. It is through the medium of recordings that folk-songs can be borrowed, learned and internationally exchanged.

Tucked away in small out-of-the-way hamlets scattered across the country are found melodies of the early French settlers. In many cases the origin and history of the songs have been forgotten but the original beauty remains.

Weddings, village fairs and religious celebrations abound with folk-songs and at these gatherings many new songs come to light. Approximately 4,000 recordings of French-Canadian folk-songs have been made. Some themes date back to 1680. The subject matter is varied, legendary, adventurous, gallant, inspirational, mocking and capricious.

Almost 3,000 songs of the 50 Indian tribes of the woods of North America and songs of the inhabitants of the Arctic rim are included in the collection. Drums, rattles, whistles and horns add accompaniment to the singing of the painted Indian warriors at their campfire dances. Believed to be inspired during dream-like trances, these original songs of the red-man are a heritage. Payment was demanded by a father before passing the song down to his son. Even now confidence must be established with the Indian before he will consent to sing for a recording.

Songs of the Eskimo are changeable. He sings and plans songs during the spring and summer and fall months to be sung at the dances in the winter. Like the modern dance music some of these songs make a hit and remain favourites from year to year, but more often last only one season.

A happy and musically-inclined race of mysterious origin, the Eskimo will sing his songs freely and without embarrassment.

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No. 245. Thurs. June 2, 1938 -- Mining and the Farmer

Superficially it seems a far cry from mining to agriculture, but the operations on Canadian farms illustrate once again the close association between the two. The fertilisers, upon which the luxuriance of the various crops so largely depend, contain many ingredients derived from minerals-- sulphate of ammonia, ammonium phosphate, superphosphate, calcium cyanamide, phosphoric acid, and potash, to name but a few. Other minerals include magnesium, sulphur, boron, copper, manganese, iodine, zinc and iron.



There are quite a number of plants in Canada devoted entirely to the production of these mineral fertilizers, the largest cyanamide plant in the world being situated, indeed, at Niagara Falls.

During the last "fertilizer year" the Canadian output reached 579,196 short tons, an increase of 33 per cent. over the preceding year. Of this total, 229,888 tons were mixed fertilizers; 162,509 tons calcium cyanamide; 79,556 tons sulphate of ammonia; 66,967 tons superphosphate, and 32,151 tons ammonium phosphate.

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No. 246. Fri. June 3, 1938 -- Peaceful Purpose of Nickel

With Canada supplying 86.5% of the world's consumption of nickel, it is interesting to note that practically 90% of this metal is today used for commercial purposes and only 10% can be traced to the use, in one form or another, in armaments. The general manager of the Canadian company controlling the production of nickel in the Dominion stated, in his presidential address recently, that approximately \$18,750,000 had been expended in the past twenty years in research, development and publicity to create peace-time uses for nickel. "Whereas prior to and during the Great War the greatest part of the world's nickel production was used in armament", he said, "today the converse was true and all but a small part of the world's nickel is absorbed by industry for a multitude of peace-time uses".

Nickel is of minor importance in warfare as contrasted with steel, copper, zinc and lead, he observed. Not only does but a small fraction of nickel go into war materials, but the percentage that does go into armament represents a negligible percentage of the total of all metals used for such purposes. "For example, no nickel whatever is used in rifle or machine gun barrels or in bayonet steel. Nickel in bullet jackets has been replaced largely by "gilding metal", a less expensive alloy containing no nickel whatsoever. Nickel is used in large gun forgings, trucks, aeroplanes and in armour for battleships. The alloy steels used for the purposes enumerated contain only from 1% to 5% of nickel and the amount of nickel so used is less than 10% of the world output. Thus nickel is not essentially a war metal, nor is it essential to war, whether gauged by the percentage of nickel which goes into armament or whether gauged by the percentage of armament metal which is represented by nickel.

"Nickel is sold in bulk to steel makers and alloy manufacturers throughout the world, who, in turn, sell their nickel-bearing products to numerous fabricators for final distribution to numerous users. Thus the nickel used in armament exclusively cannot be segregated successfully".

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No. 247. Sat. June 4, 1938 -- Racial Origin of Canadians

In 1931, 51.86 p.c. of the population of the Dominion was of British stock and 28.22 p.c. French. Other European origins constituted 17.59 p.c., Asiatics less than 1 p.c. and all others, including Indians and Negroes, approximately 1.50 p.c. All coloured people combined totalled slightly over 2 p.c. The population of Canada, as a whole, is predominantly British and French, these two stocks constituting 80 p.c. of the total. Other white races, principally Europeans, accounted for nine-tenths of the remaining 20 p.c.

In numbers, the North Western Europeans (other than British and French) exceeded the South, Eastern and Central Europeans by 12 p.c. in 1931 as compared with 20 p.c. in 1921. Numerically the most important foreign stocks in Canada of North Western European origin are the German, Dutch, Norwegian and Swedish in the order named; among the South, Eastern and Central Europeans, those reported as of Ukrainian, Polish, Italian and Russian origins. Approximately one-tenth of the population is accounted for by five foreign stocks, the German (474,000), Ukrainian (225,000), Hebrew (157,000), Dutch (149,000) and Polish (146,000).

Since the beginning of the century, the composition of the population of Canada has been in a state of rapid change. The proportion of Anglo-Saxons has dropped materially and that of the French moderately, while the percentage of foreign European has shown a consistent and drastic increase.

In the absence of the customary volume of immigration from the British Isles during the last decade (1921-31) the French increased almost twice as rapidly as the Anglo-Saxon races; with the resumption of moderate immigration from Continental Europe and continuing higher birth rates among earlier immigrants, foreign European stocks increased nearly four and a half times more rapidly than the British. The rate of increase for the South, Eastern and Central Europeans exceeded that of the North Western Europeans by 25 p.c. Even without further immigration (or emigration) differential fertility alone, if continuing on anything like the present scale, promises to effect quite as radical changes in the racial composition of the future Canadian population as have occurred in the past.

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No. 248. Sun. June 5, 1938 -- Birthplace of Population

In 1931, 97 p.c. of the French and 75 p.c. of the Anglo-Saxons in Canada were Canadian-born. The North Western Europeans showed 64 p.c. of Canadian birth as against 48 p.c. for the South, Eastern and Central Europeans. Among the linguistic groups, the Germanic with 71 p.c. had the highest figure though the Slavs and Latins and Greeks both showed somewhat higher proportions Canadian-born than the Scandinavians. A relatively large percentage of the latter group was born in the United States so that from the standpoint of date of arrival on this continent the Scandinavians with the Germanic peoples belong to the older immigrants. Considerable overlapping, however, exists.

Of all foreign European origins the Dutch showed the largest proportion born in North America (86 p.c.), the Germans ranked next (79 p.c.); they are followed by the Icelandic and Norwegian races. The Belgians on the other hand are relatively recent arrivals. The Swedes though usually considered as among the earlier immigrants have smaller proportions Canadian- and United States-born than the Russians, Ukrainians or Austrians; the Danes follow the Roumanians who are next below the Swedes.

The relative position of the several races is, of course, affected by their individual fertilities, differences in which tend to minimize the disparity in dates of arrival as measured by the proportions North American-born. In 1931, 16.3 p. c. of the Scandinavian and 8.5 p.c. of the Germanic origin groups resident in Canada were of United States birth as against less than 2 p.c. of the Slavs and Latins and Greeks.

Of the resident immigrants from the United States in Canada in 1931, approxi-



ately 51 p.c. were of British racial origin and 16 p.c. of French. If to these be added United States-born immigrants of German, Dutch and Scandinavian extraction one has a total of 94 p.c. Immigration from the United States has included practically no South, Eastern and Central Europeans.

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No. 249. Mon. June 6, 1938 -- Changing Structure

The net effect on our population structure of immigration, emigration and natural increase during the last decade (1921-31) has been a decrease in the relative importance of both the British (other than Canadian) and United States born and an increase in the absolute and relative importance of the other foreign-born portions of our population. There was a net emigration of United States-born Anglo-Saxons back to the States and a net immigration into Eastern Canada of descendants of earlier French-Canadian emigrants to the New England States. On balance the United States immigrants resident in Canada showed an absolute decline.

Over the period 1901-31 the number of resident immigrants in Canada increased more than three times faster than the Canadian-born population. Radical changes also have taken place in the source of Canadian immigration. Thirty years ago three out of five resident immigrants were from British countries; now the ratio is half and half. In 1901, United States-born residents of Canada slightly outnumbered Continental Europeans; in 1931, Continental Europeans exceeded United States-born by two to one. At the turn of the century only a slight disparity existed between the proportion of resident immigrants from North Western and South, Eastern and Central Europe; at the date of the last census the latter outnumbered the former by nearly three to one.

During the last decade the rate of increase of the British born dropped to a half that in the previous decade while that of the Continental Europeans as a whole more than quadrupled with the result that it exceeded that for the British Isles and British Possessions by between four and five times. Among the Continental European immigrants only the Latin and Greek group failed to maintain a rate of increase several times greater than that for the population as a whole. The South, Eastern and Central European born increased nearly twice as rapidly as the North West Europeans. Poland, Russia, Hungary, Czechoslovakia, Germany, Finland, Yugoslavia and Roumania were heavily represented in descending order in the nativities of immigrants coming to Canada from Continental Europe between 1926 and 1930, the portion of the decade in which most of the immigration occurred.

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No. 250. Tues. June 7, 1938 -- Sex and Age

Differences in sex distribution have an important bearing on criminality and law enforcement; indirectly, sex differences also throw light on the differing behaviour of immigrant peoples in respect to permanency of residence in Canada, conjugal condition, intermarriage and a number of other social phenomena. Marked disparity in sex ratio exists as between the various racial origins in Canada but of more direct interest are the differences in the sex composition of immigrant groups. Immigration and emigration are the basic causes of all major sex inequalities in our population. The percentage surplus of males in the population

as a whole was approximately 7 p.c. in 1931; that in the immigrant section of the population approximately 28 p.c. or four times greater.

Immigration was responsible for about 78 p.c. of the sex inequality of the population of Canada as a whole; some 96 p.c. of the surplus males in the total immigrant population of Canada in 1931 were over 21 years of age. Great variation occurs in the degree of sex inequality of the different origin and nativity groups. Certain peoples tend to migrate as families; then sex distribution is more or less evenly balanced. With others, emigration consists largely of unattached males who swell the large single floating male population of the country which constitutes a social problem of some magnitude.

With the resumption of immigration in the post-War decade the surplus of unattached males increased for most immigrant groups.

In making comparisons between different population groups with regard to social or anti-social behaviour, age distribution is an important factor which must be reckoned with before valid conclusions can be reached. Important as are age statistics as means of correcting crude data before comparing two or more sections of a population in respect to a given characteristic, they are equally valuable in helping to explain such differences in the behaviour as are attributable solely to the absence of persons of other ages in normal proportions.

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No. 251. Wed. June 8, 1938 -- Marked Differences

Marked differences exist in the age distribution of the different nativities in Canada. Among the Canadian born, the proportion of children under 15 years of age was 4.8 times larger than that for the foreign born and 7.5 times larger than that for the British born. To compensate for the small percentage of children among the immigrant population both the British and foreign born show proportions very much larger than the Canadian born in the age groups 25 to 55. The largest percentage of males of foreign birth was in the age group 30-34 while the largest percentage of males of British birth appeared in the group 45-49. Similar percentages for the females occur in the quinquennial age groups immediately preceding. These differences are largely a matter of recency of immigration.

Equally significant are the differences in age distribution of the various stocks in Canada. An origin includes not only the foreign born but their Canadian-born children and thus has a more or less real and distinct existence as a population group. Next to the Chinese and a few origins which have been augmented by abnormally heavy immigration in recent years the British show the lowest proportion under 10 years of age. They are followed by the Scandinavian, Germanic, Slavic, French and Latin and Greek groups in the order named. While the proportion of young children in an origin group is a function of several factors-- sex distribution, recency of immigration and fertility-- a large proportion is almost invariably associated with high fertility.

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No. 252. Thurs. June 9, 1938 -- Conjugal Condition

The 1931 Census tabulations make possible for the first time a study of the conjugal condition of the individual races which go to make up the Canadian population. Larger proportions of males than of females 15 years and over are unmarried in the



case of every origin for which data are available. This fact is associated with inequality of the sexes attributable largely to immigration. For the population as a whole 40.93 p.c. of the males 15 and over were unmarried in 1931 as against 34.01 p.c. of the females, a proportion some 20 p.c. greater.

Not only do larger percentages of foreign European origins marry but they marry younger than females of the basic Anglo-Saxon stock. What applies to the group as a whole applies to an even more marked degree to races like the Ukrainian, Polish, Italian and Russian who as population groups are among the more recent arrivals on this continent. The disparity decreases with the Germans, Dutch and Scandinavians and other Western European races containing smaller proportions of immigrants.

Differences in age and sex account for approximately 50 p.c. of the differences in the proportions of the females of the different origins who were unmarried in 1931, and age, sex, the percentage of eligible males to all males, the ratio of eligible females to eligible males and illiteracy combined account for slightly over 90 p.c. of the differences. The determining factors were age and sex distribution-- more especially sex distribution-- and economic status in relation to the customary standard of living which in a good many cases reduces itself to simple economic capacity to support a wife. The latter is lacking more particularly among races especially exposed to depression conditions whether because of recent arrivals in this country or because of heavy representation in occupations particularly subject to unemployment during periods of economic stress. Since the above variables which are largely non-racial in character account for such a high percentage of the differences between the racial origins in the matter of the proportions of females married, it follows that the propensity to marry differs very little as between the races. The only significant difference seems to be that some marry younger than others.

In Canada as a whole the proportions of the British and of the foreign born 15 years of age and over who either are married or have been married are appreciably greater than that for the Canadian-born population. That this should be true of the immigrant males despite a large shortage of immigrant females is significant. The fact that these differences may be attributed in part to lower age of marriage customary among immigrant people and in part to differences in age distribution, does not alter their importance from the standpoint of the relative contribution that these nativities might be expected to make to the future population of Canada.

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No. 253. Fri. June 10, 1938 -- Immigrant Stock Distribution

The racial structure of the population of the Dominion differs radically as between the various sections of Canada. The proportion of Anglo-Saxon stock varies from 84 p.c. in Prince Edward Island to 15 p.c. in Quebec. Nova Scotia, Ontario and British Columbia are between 70 and 80 p.c. Anglo-Saxon, New Brunswick around 63 p.c. and the Prairie region about 50 p.c. Approximately 80 p.c. of the population of Quebec are French and 33 p.c. of the residents of New Brunswick. In the other Maritime Provinces French constitutes between 10 and 15 p.c. of the population and from 9 to 2 p.c. from Ontario west, the lowest proportion being in British Columbia. The relative density of foreign European stocks in the mid-western provinces is from two and a half to some forty-five times greater than in other parts of the Dominion and, on the average, perhaps four times greater than in the East as a whole. An appreciation of this phenomenal lack of inter-regional racial homogeneity is essential to a proper understanding of many important phases of our national life.

During the last decade, the decline in the proportions of Anglo-Saxons has continued in all sections of Canada. This decline is attributable to immigration which was largely of non-British origin, emigration of Canadian born (largely Anglo-Saxons) and high fertility on the part of non-Anglo-Saxon races. The declines were most marked in the West. In Saskatchewan the majority of the population is now non-Anglo-Saxon, and a continuation of present trends promises to bring about a similar situation in both Manitoba and Alberta before the next decennial census. Despite the absence of French immigration the proportion of that origin in the populations of most provinces moved slightly upward except in Quebec, which experienced a considerable emigration of native French Canadians to the States and an appreciable immigration of foreign stocks. Significant increases in the relative importance of Continental European stocks occurred in all provinces except the Maritimes where the numbers are negligible.

The proportions of the population foreign-born range from less than 2 p.c. in Prince Edward Island to 27 p.c. in Alberta, 24 p.c. in Saskatchewan and close to 19 p.c. in Manitoba and British Columbia. The largest proportion shown in any eastern province was 8 p.c. for Ontario. The proportion Canadian-born ranges from over 97 p.c. in Prince Edward Island at the extreme east to 54 p.c. in the far west. The Prairies show from 58 to 66 p.c. Relative to the population, British immigration has been heaviest to British Columbia where 27 p.c. of the 1931 population was born in British countries other than Canada. The proportions of British born in Ontario, Manitoba and Alberta are approximately 15 p.c.; in Saskatchewan 11 p.c. In no province east of Ontario do British immigrants constitute a significant element in the population.

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No. 254. Sat. June 11, 1938 -- British in Ontario

In Ontario and British Columbia the proportion of the population of British birth (outside Canada) is from half again to twice as large as the proportion of foreign birth; in Manitoba there are about a quarter more foreign than British born, in Alberta and Saskatchewan approximately twice as many. Thus while the West generally has gained more than Ontario and many times more than the provinces east of Ontario through past immigration, it has received a disproportionately large share of alien stocks. Ontario was the one eastern province that got more than its quota of British immigration.

Alberta shows larger proportions of her population born in the United States, in Scandinavian countries, in Germanic countries and in Latin and Greek countries than does any other province in the Dominion and she ranks second only to British Columbia in the percentage of Asiatics. Manitoba has by far the largest percentage of Slavic nativities. Saskatchewan stands second for all foreign groups of nativities except the Scandinavian and Asiatic. Other western provinces hold third and fourth places for all foreign nativity groups other than the South, Eastern and Central Europeans, who now constitute a fractionally larger proportion of the population of Ontario than of British Columbia, although the actual percentage is appreciably less than half that for the Prairie region generally.

In the four western provinces as a whole the percentage of foreign born in the population has declined steadily since the beginning of the century. In all five eastern provinces the proportion has consistently increased. A greater proportion of foreign immigration is finding its way to Eastern Canada than formerly and a smaller proportion is going west. The same is true of the British. The figures,



especially those of the last decade, suggest a marked shifting of the relative capacity of Eastern and Western Canada for absorbing immigration from other countries whether British or foreign.

No. 255. Sun June 12, 1938 -- Increase in Foreign Born

Comparison of the 1931 and 1921 figures provides further evidence of the declining importance of British and the increasing importance of the foreign born in the immigrant population of the country. This trend appears in all provinces save one (New Brunswick) and is most marked in Ontario, Manitoba, Quebec and Prince Edward Island. In these provinces the foreign born constituted a proportion of resident immigrants from 4 to 6 p.c. larger in 1931 than in 1921 and corresponding declines occurred in the percentage of resident immigrants of British birth.

While since the War, Ontario and Quebec have received a larger proportion of foreign immigrants than formerly, up to 1931 the West was still receiving more than its share. A generation of foreign settlement largely directed toward the West has created tremendous differences in the nativity as well as the racial composition of the population in the eastern and western parts of the Dominion. Even if these differences are not accentuated by further immigration, they will continue to increase as a result of differential fertility. In so far as differences in population composition make for differences in culture, the foregoing findings would seem to merit thoughtful consideration by all who are interested in the creation of a united Canadian people.

No. 256. Mon. June 13, 1938 -- Urban and Rural Distribution

Marked differences in the proportions urban existed as between the various groups of immigrants resident in Canada in 1931. The Asiatics were the most urban with 74.68 p.c. living in incorporated cities, towns or villages and the Scandinavians the lowest with only 34.58 p.c. Of the Europeans, immigrants from the British Isles and Latin and Greek countries (Roumania excepted) show marked preferences for urban life and urban occupations; the Slavs and United States born are about equally divided between city and country and the Germanic immigrants like the Scandinavians are definitely rural though not to quite the same extent.

During the decade 1921-31, urban industries and urban occupations appear to have been able to absorb a much larger share of the new immigration than have the rural. Not only did urban centres attract a disproportionate percentage of current immigration (nearly three-fifths of the total) but they seem to have suffered less from emigration of earlier immigrants and/or to have gained through a net rural-urban migration of pre-1921 rural immigrant settlers. Of the estimated net addition to the total foreign-born population in Canada between 1921 and 1931 over 75 p.c. was urban. The figures indicate an underlying change in the direction of immigration as between rural and urban parts during the decade.

In 1931, the foreign born were more urban than the Canadian born in the six eastern provinces and less urban in the three western provinces. Urbanization among the immigrants has been proceeding less rapidly than with the Canadian born in New Brunswick, Quebec, Ontario and British Columbia; it has been proceeding more rapidly in Prince Edward Island, Nova Scotia and the Prairie Provinces.

For all but three countries of birth the percentage of females urban exceeds the percentage of males. The difference between the sexes in this regard is greater for the immigrants than for the Canadian born and greater for the North Western than for the South, Eastern and Central Europeans.

Not only are the immigrant sections of the various stocks generally more urban than the Canadian-born sections but the adult portions of the several origins are more urban than the children. The latter circumstance is associated with higher birth rates in rural parts and less inequality of the sexes among the adults. The tendency of females to congregate in urban centres exceeds that of the males for the racial as well as the nativity grouping.

Approximately 29 p.c. of the population of Canada lived in cities of 30,000 and over in 1931. The Hebrews had a percentage in large cities nearly three times greater than had the population as a whole; the Greeks, Bulgarians and Lithuanians proportions over twice greater; the percentages for the Chinese, Italians and Syrians were between 50 and 100 p.c. larger; and those of the Japanese, Negro, British and Hungarian origins from 1 to 50 p.c. larger. The tendency to avoid large cities was most marked in the case of the Norwegians, the Dutch and the Swedes.

A considerably greater concentration in the metropolitan areas was in evidence in 1931 than in 1921, both for the population as a whole and for all but seven of the thirty racial origins for which separate data are available.

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#### No. 257. Tues. June 14, 1938 -- Segregation

Among the nativities showing the least tendency to segregate are the British Isles, Denmark, France, Holland, Switzerland, United States, Belgium, Germany and Austria in ascending order, the figures ranging from 100 for immigrants from Scotland to 125 for immigrants from Austria. Immigrants from Poland, Czechoslovakia, China, Sweden, Roumania, Norway, Russia and Hungary occupy an intermediate position with indices between 129 for Poland and 146 for Hungary. The balance, i.e., the Italians, Finns, Lithuanians, Greeks, Yugoslavs, Bulgarians, Icelanders and Japanese show more than the average tendency to segregate. The figures for the latter group run from 155 for the Italians to 247 for the Japanese as noted above.

The position of the various nativities in the list does not follow any definite geographical grouping. It is true, however, that immigrants from Britain, the United States and Germanic countries segregate much less than those from Slavic, Latin and Greek and Scandinavian countries, Denmark excepted.

The racial index has a wider range being based on municipal rather than county data. Here a distinct division appears. The Anglo-Saxons, Scandinavians and Germanic peoples spread much more evenly than do the Slavs and Latins and Greeks. The North American Indians and the Hebrews show the greatest tendency to segregate.

Neither of the above indices distinguishes between rural and urban segregation. When they are studied in conjunction with the data on rural and urban distribution in the preceding article the reader will have no difficulty in determining which type of segregation is characteristic of the several nativity and origin groups.

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No. 258. Wed. June 15, 1938 -- Intermarriage

Intermarriage is at once an index and a method of assimilation. The foreign stocks in Canada show great differences both in respect of the extent to which they have intermarried with each other and with the basic stocks of the country and of their inclination to do so. Some stocks like the Orientals, Hebrews and certain of the South, Eastern and Central European peoples do not readily assimilate by intermarriage; others do so with considerable ease and rapidity.

By 1931, 37.8 p.c. of the married men and 37.6 p.c. of the married women of North Western European origins had married outside their respective stock, as against 18.4 p.c. of the men and 18.0 p.c. of the women of South, Eastern and Central European stocks. Thus the North Western Europeans as a group had intermarried with others over twice as much as the Eastern and Central Europeans. Of the linguistic groups, the Scandinavians had married out to the greatest extent--- approximately 54 p.c. for the men and 52 p.c. for the women; the Germanic peoples ranked second with 32 and 33 p.c. Only 25.9 p.c. of the men of Latin and Greek origin had crossed the racial line in marriage and 11.8 p.c. of the women; for the Slavs the figures were 17.6 and 19.4 p.c. respectively. The progress of intermarriage has thus proceeded much further with the Scandinavian and Germanic origins than with the Slavic and Latin and Greek. Many stocks have scarcely intermarried at all.

During the decade 1921-31, intermarriage increased appreciably for both geographical groups of origins, the increase being more marked for the North Western European males and the South, Eastern and Central European females. Increases were greatest in the case of the Scandinavians (both sexes) and by a wide margin.

Even greater differences appear in the progress of assimilation by intermarriage with the basic stocks of the country. The proportion of North Western Europeans who had married Anglo-Saxons by 1931 was five times larger than that of the South, Eastern and Central Europeans. Scandinavian males had married with the British ten times more than had males of Slavic origin, the Germanic peoples seven times and the Latin and Greek three times more. Some 32.3 p.c. of the Scandinavian married males had married British wives as against 3.0 p.c. for the Slavs. The disparity was about the same for the females.

Much smaller proportions of alien stocks had married French at that date partly because the French are as yet less numerous than the Anglo-Saxons in Canada and partly because of their concentration in the province of Quebec, which has received a relatively small infusion of immigrant stocks from abroad. Save for the Italian, and Greek males the North Western Europeans have also married more with the French than have persons of other European extractions. The Latin and Greek males have intermarried to a far greater extent with the French (and British) than have the females of those origins.

Speaking generally, assimilation by intermarriage with the British and French has made some progress among most of the North Western European peoples but it has scarcely begun with those of the South, Eastern and Central parts of the continent.

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No. 259. Thurs. June 16, 1938 -- Agriculture in Canadian Schools

For no other occupation, with the possible exception of home-making, do Governments in Canada conduct so many educational services outside of the schools as for agriculture, states the Annual Survey of Education in Canada, 1936. Short

courses by provincial Mines Departments for prospectors have been attended by nearly 5,000 men in a year lately, but short courses for farmers, their wives and children, varying in length from a few days to a few weeks, are attended each year by several times this number. And courses are by no means the only type of educational service sponsored by the Extension Branch of Departments of Agriculture and agricultural colleges. One variety alone, that of the organization of boys' and girls' farm clubs, includes more than 35,000 young people.

With regard to schools proper, the total number of schools that would be called agricultural high schools, in the sense that the term "technical high school" is used, is less than a dozen, but some of the provinces provide a good deal of agricultural instruction in the regular courses for school leaving, normal entrance, or matriculation. About one-third of the academic secondary schools in Ontario (collegiate institutes, high, and continuation schools) have agricultural classes. The "ruralization" of teaching in Quebec schools has received emphasis in recent years. Available information, however, does not permit of a tabulation that would convey a reliable impression of the extent of agricultural education in the ordinary schools of the several provinces together.

There are two residential agricultural schools (other than agricultural colleges) with one or two-year courses in Alberta, one in Ontario, and two in Quebec. They serve much the same purpose as the diploma course in agricultural colleges which are held at one centre in each province, except in Quebec where there are three, and in New Brunswick and Prince Edward Island where there is none. These boarding schools for the teaching of agriculture remain rare in Canada as compared with some other agricultural countries. Denmark, with a population about equal to Ontario's, has 21 such schools, with an annual attendance of 2,500 to 3,000, in addition to 59 folk high schools (also residential institutions) with an attendance of 6,500 drawn mainly from young people from the farms. The total enrolment in agricultural boarding schools throughout Canada, including the diploma course at agricultural colleges as well as the other five schools, is about 800.

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No. 260. Fri. June 17, 1938 --- Canada's Newest Highway

A new road is being driven through the Rockies and is being paid for by 85,000 private residents in the Peace River area of Alberta. It will link their land with the Pacific Coast and give them a new outlet for their products. Without any assistance from Governments or any outside source, they raised a public subscription, using such means as dances, shows and whist drives, and now they are carving their way through the great barrier from Rio Grande in Alberta to Prince George in British Columbia, where a direct highway already exists over the famous Cariboo Trail to Vancouver.

The story of this great enterprise has as its first chapter the disappointment of a farmer, Alexander Monkman, who, forty years ago, started ranching in the Peace River area, but gave it up because of the serious handicap of lack of transport. He returned to his original task of trapping, and in 1922, while operating in the mountains south-west of Rio Grande, he found himself, rather to his own surprise, on the other side of the Rocky Mountains, having discovered a hitherto unknown pass. The ascent had been gradual and easy, the trail standing only 3,550 feet above sea level at its highest point. Actually what he had discovered was the easiest and lowest pass through the Rocky Mountains north of Montana. Some, indeed, claim it is the easiest pass north of the Panama.



Now Monkman is again at work with pick and shovel, and although sixty-seven years of age, is one of an army which is making his dream come true.

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No. 261. Sat. June 18, 1938 -- Treasure Hunts

The mineral production in Canada in 1900 was valued at 64 million dollars. Thirty-seven years later it was over seven times greater or 457 million dollars.

Now this increase has not been the result of chance. Unlike the treasure hunters of old who went in search of gold, silver and precious stones, the treasure hunters of today are looking for any metal or ore which may be of use to mankind.

The Department of Mines and Resources sends out parties of surveyors and explorers every year to map and investigate the possibilities for mining operations. The findings of these groups are made available to the public in the form of geological maps and reports.

Close to three hundred men have been assigned to field work this year. Forty-one parties will make geological investigations and seventeen will make maps. These men go into every mineral producing province in the Dominion and in the Yukon and Northwest Territories.

The mining industry means much to Canada for there is \$800,000,000 of capital invested in it and about 80,000 employees who receive in salaries and wages \$100,000,000 annually. This does not take into consideration the many thousands employed in factories and in transportation services which depend upon the mining industry, such as the making of chemicals, machinery and textiles.

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No. 262. Sun. June 19, 1938 -- Father's Day

Today is Father's Day. As yet this particular occasion has not received the attention that Mother's Day has. Nevertheless, there is probably as much love and affection bestowed upon the million and a half fathers in this Dominion as there is upon the mothers of the same homes. To the 57,000 widowers who are trying to be both mother and father to their children, a further debt of gratitude is due.

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Tomorrow in London, England, Red Cross officials of more than 60 countries will begin a four-day meeting. This splendid organization has over three hundred thousand Canadian school children listed in its service. The Junior Red Cross aims to promote the principles of health, good citizenship and international friendliness among the younger members of the Dominion.

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Tomorrow is wash-day. Ladies, you could make a tremendous cloud of suds with the soap made in Canada last year-- 94,000 tons of it. Most of the production was laundry and household soap but 17,000 tons were used for toilet purposes and 475 for shaving. Somewhere, somebody will be using part of the thousand tons of soft soap produced.

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The chances of finding one, solitary pearl in your oyster may be small but we are told that a single oyster may have 60 million eggs. No wonder it is possible to market from 25 to 27 thousand barrels of oysters every year.

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Some idea of the importance of the dried apple industry to the Province of Nova Scotia may be gained from a statement by the Department of Agriculture. During the 1936-37 season the amount of dried fruit totalled over five million pounds, requiring nearly four hundred thousand barrels of apples. It takes about 10 pounds of fresh fruit to make one pound of dried.

The greater number of the five million barrels of apples produced in Canada last year were consumed in the fresh state, both at home and abroad.

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No. 263. Mon. June 20, 1938 — Business and Education

A leading Canadian business man, speaking in a Prairie City recently, said much about education from the business man's point of view. His definition of education was simple. Education, he said, was nothing more nor less than the attempt to mould and adapt the youth of a community to play the best part possible in the world into which they have been born.

He agreed that the task, so far, had been well done, at least in respect to the education of the people towards increasing the production of wealth, but, he went on to say, "the evidence is clear that it is far more important to teach youth a sound philosophy of life, to give them those qualities which will enable them to meet the vicissitudes of fortune with that equal mind which the ancient philosophers taught us to regard as the source of true happiness".

Character and courage, more than the accumulation of wealth, are the foundation of human happiness. This was the point of view that the speaker stressed.

Is it not true that the object of our educational practice and system is not to teach men what to think but rather to teach them how to think? All teachers and trainers of youth will not agree with that entirely but, in the main, it may be taken as the purpose in general of the educational authorities throughout the land. Accepting that, it will be useful to inquire for a very few minutes into some of the conditions which prevail in Canada for the training of the human mind in order to make it capable of formulating ideas basically correct and equipping it with the power of exact expression so that the ideas formed may be conveyed accurately to others.

Education in Canada cannot develop a single system because of the racial and provincial characteristics concerned. That is, it is not desirable to create a Dominion-wide system that in all aspects and trends would be the same in every part of the land. In the final analysis, the results may not be very dissimilar but the possibility that disagreement may be furthered is ever present. However, taken all in all, and remembering that each province is the master of its own educational system, we have fared well and happily.

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No. 264. Tues. June 21, 1938 -- Teachers' Salaries

There has been in existence for several years at the Bureau of Statistics an Educational Branch which seeks to act as a clearing house of information for all provinces regarding each. It has no administrative authority, of course, for there is no central authority of any kind in Canada. But in the setting out of facts, as gathered from all corners of the Dominion and presented clearly so that all who run may read, it has performed an important service, to which educational bodies have been very responsive.

It has been found, for instance, that between 1930 and 1937 there has been a drop of about 25 per cent in the national expenditure for schools and colleges. Since 1934 there has been little change in the amount spent for Canadian education. The annual sum has been approximately equal to that of 1926 when the average daily attendance of pupils was about 17 per cent less. For each adult of our population the yearly cost of schools and colleges is about \$22. School and college debt is about \$45 per adult of the population. It has been reduced somewhat since 1934 but it is still around 25 per cent higher than in 1926. However, it constitutes only about 5 per cent of the total public debt in Canada-- Dominion, provincial and municipal. Our total Canadian public debt amounts to more than \$800 per adult in the population.

There has been a loss of from one-fifth to one-fourth of school revenues. This would not have been so hard for the educational institutions to bear had it been more evenly distributed among them, but a disproportionate share of the loss, generally speaking, has been suffered by the rural schools. Rural losses have been heavier in every province than the urban. In most of the provinces they were very much heavier.

The startling fact is that the average salary of rural teachers, in a majority of the provinces, is less than half of the urban salary. Only in two provinces, British Columbia and Prince Edward Island, is the rural salary considerably more than half of the urban salary.

Living costs in the country are not so high as in the city and rural salaries accordingly do not require to be so high, dollar for dollar, in order to be equivalent, but the difference can hardly be two to one. There is in this condition of things what has been described as an ever-present danger to our internal security. There is little likelihood of building up a reasonably permanent body of country teachers so long as this remains the ratio of pay. If rural teachers continue in the teaching profession at all, it is likely to be only in the hope of eventually finding a city or town position.

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No. 265. Wed. June 22, 1938 -- Psychology and Salaries

There is a danger in the situation mentioned yesterday which is common-place psychology. Employees working under a sense of unfair treatment can hardly expect to deliver the best that is in them consistently. Human nature will show itself. Injustice has its evil results and in the teaching profession, possibly more than in any other, it is highly important that fair treatment be meted out. Youth coming under the influence of teachers who are constantly suffering from injustice, are quite likely to be influenced accordingly.

But, apart from that, a more or less permanent force of highly trained teachers

in the rural schools is more than of local importance, for the country is the feeding ground of the city. There is a constant migration from the rural to the urban centres, and, if country-schooled youths are to be on equal terms with their city cousins, they must be as well equipped scholastically. Country families are on the average larger than city families. The cities need these children.

There is only time to express one more thought which statistics bring to mind. The scholastic period of children is today more prolonged than when most of our social legislation was established. Wage-earners, in these latter days, have a shorter period of working life. They marry later. Their children are still at school at a time of life when earlier generations had their families out on their own. They are therefore less able to prepare for their old age adequately. The tendency is to retire men from work earlier. Thus the educational requirements of our modern civilization and our tendency to decrease the working hours, have built up a new social problem that is exercising the minds of the authorities.

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No. 266. Thurs. June 23, 1938 -- Rabbits and Other Things

After being accustomed to regard rabbit fur as one of the very cheapest and commonest, worth only about 12 cents a pelt, it was somewhat remarkable, a day or two ago, to come across an item in the trade records showing that 21 rabbits had been imported into Canada in March at a cost of over \$9,000.

However, the customs authorities were able to give the explanation. It seems that the chinchilla, a native of the Andes, after many efforts, has at last been acclimatized in California and therefore will be able to thrive in Canada. The animal is very like a rabbit or squirrel and was not classified separately in the trade figures.

The chinchilla is described as a rodent, about 10 inches long. It has long hind legs and a bushy tail. It lives in burrows in barren districts. The fur is very valuable. Half a dozen were brought into Alberta in March and the expectation is that they will thrive. These little animals are priced at around \$1,600 each at present.

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Brazil has been in the limelight during the past few weeks. In March we got 360,000 pounds of canned beef from that country. Most of our canned beef comes from South America-- Argentina and Uruguay usually providing the main supply. Brazil and Paraguay are now entering the picture, however, in quite a large way.

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One of the most impressive things in the imports of farm implements and machinery is the sharp gain in recent years of the importation of cream separators from Sweden. Five or six years ago the number was two or three thousand but they have increased steadily since then and the imports now run up to over 15,000. They appear to be small hand machines, for the average import value is slightly less than \$20 each. The Scandinavian countries have a reputation for doing well what they set their minds to do and apparently they have cut a swath for themselves in Canada in some directions-- particularly in machinery.

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Canadian-made toilet soap seems to be winning its way to popularity abroad. Great Britain takes most of it, but in March alone, Ceylon got 10,000 pounds and Jamaica 9,000. These are quite large amounts for comparatively small countries.

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Five and a half thousand pounds of mineral wax was imported from Newfoundland last month. This substance is a mixture of natural paraffins occurring usually in coal-measures and is used extensively as a purified paraffin.

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No. 267. Fri. June 24, 1938 --- Odds and Ends

In our cities and towns a motorist travelling in the vicinity of a school will observe the fleet of bicycles used by hundreds of boys and girls. Over nine hundred more of these vehicles were imported during April. Five hundred of them came from the United States, about four hundred from the United Kingdom, eight from Germany and two from Japan.

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Limestone which is used in more ways than any other rock, constitutes about 87 per cent of the Canadian stone production. A number of new limestone quarries were opened in 1937 and several that had been idle for some time were re-opened. It is estimated that close to eight million tons of limestone were produced last year.

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Several items of interest have been published by the Department of Mines and Resources recently. One deals with the raising of reindeer in Canada. In 1935 a herd of over two thousand animals was delivered to the reindeer station in the Mackenzie Delta. In July a round-up will be made to estimate the increase. So far, approximately thirteen hundred fawns have been added this year to the herd since fawning began in April.

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Another item deals also with wild life. One of the outstanding features at the Canadian Pavilion at the Empire Exhibition now in progress at Glasgow, Scotland, is a display of wild life of the Dominion. Mounted specimens of animals and birds along with electrically lighted translites and a special art collection of oil paintings, posters and sketches in oil, make up an attractive educational exhibit.

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According to a report issued in April by the Entomological Branch of the Department of Agriculture, grasshopper eggs are spread over nearly 63 million acres in Alberta, Saskatchewan and Manitoba. In years of abundance as many as two thousand eggs to the square foot have been found in Western Canada.

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No. 268. Sat. June 25, 1938 -- Millionaire Fish

We have nine kinds of fish in the millionaire class, each contributing over a million dollars to the value of Canadian fisheries. Salmon leads the way with close to fourteen million. Cod and herring follow with three million each, says the Fisheries Department. Sardines may be small but their value runs to over  $1\frac{1}{2}$  million dollars, outdoing the whitefish and halibut by very little. Haddock has been in the million dollar class for the past three or four years while pickerel reached that mark in 1936. Lobsters crawled along to the tune of four million dollars.

One fish listed in our fisheries report receives very little attention from Canadians. Eels are caught mainly in Quebec and exported to the United States. The catch runs about two million pounds a year.

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No. 269. Sun. June 26, 1938 -- Odds and Ends

The amateur gardener who raises flowers derives a certain amount of pleasure which cannot be measured by money but last year's commercial value of cut flowers and potted plants was close to two million dollars.

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Total traffic through the Canadian and United States locks of the Sault Ste. Marie Canals in 1937 increased 26 per cent over the 1936 traffic. Iron ore, which is by far the heaviest commodity, reached a new high record, surpassing the previous record of 1929. Coal shipments increased 5.6 per cent and wheat declined 39 per cent. The traffic through the Welland Ship Canal showed an increase of 12.5 per cent and through the St. Lawrence system, 11 per cent.

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A most encouraging development of the past decade has been the manner in which mining, forestry, electric power and manufacturing industries have taken up the slack caused by a succession of sub-normal crops. The Canadian economy in the degree of its diversification has become stronger and more resistant to the uncertainties of the climate. A recent survey of production in Canada during 1936 indicates that on the whole Canadians were more prosperous than in any year since 1931. There was an increase of 297 million dollars in production over the preceding year.

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The demands of society for soft hands may have something to do with the increased production of leather gloves, especially for cyclists and motorists. More than likely the workmen who depend upon the protection of leather from their rough work used most of the seven million pairs of leather gloves made in 1936.

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There is a good demand for leather gloves in Holland and supplies from Canada have been increasing.

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No. 270. Mon. June 27, 1938 --- Tapping Canada's Vast Resources

One of the largest treasure hunts in history has been organized by the Canadian Government. No fewer than 58 survey and exploratory parties have been placed in the field by the Mines and Geology Branch of the Department of Mines & Resources. Theirs will be all the thrill of the adventures of the pioneers, although without the individual profit, since their task is merely to explore mineral occurrences and make the information available to miners who might want to follow after.

Some idea of the prizes which await their research may be gathered from the fact that this year the mineral production of Canada is certain to exceed \$500,000,000 in value. It has now been established, indeed that, even taking Russia into account with such statistics as are available, Canada is now the world's second producer of gold, being beaten only by the Union of South Africa.

41 of the parties will be engaged in geological investigations and 17 in the important task of mapping the more promising mining areas in order to assist prospectors. All told, these parties will comprise a field force of nearly 300 men and will operate in every mineral producing province in the Dominion, as well as in the Yukon and the North West Territories. Nine of the geological parties are in British Columbia, two in Alberta, four in Saskatchewan, five in Manitoba, four in Ontario, six in Quebec, three in New Brunswick, two in Nova Scotia, one in Yukon, and four in the North West Territories. Additional to these, one party is engaged in the collection of mineral specimens in Eastern Canada.

Three of the topographical parties have been assigned to British Columbia, four to Alberta, one to Saskatchewan, three to Quebec, one to Nova Scotia, three to the North West Territories, and one to Yukon. In addition, a party is engaged in physiographic studies in the Eastern Arctic.

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No. 271. Tues. June 28, 1938 --- Home-Grown Sweaters

Over 33½ million dollars' worth of wool and its products were imported last year, according to the External Trade Branch. The United Kingdom supplied most of it. Of course, this included anything which was made of wool, everything from the raw product to carpets, socks and underwear.

Recently the Department of Agriculture had on display at an exhibition woollen sweaters and dresses made from home-grown, home carded and home dyed wool. A notable progress in the handling of wool in our own country is quite evident.

An interesting feature at this exhibition was a sheep shearing demonstration. A recognized expert on shearing and preparing the fleece for market clipped the woollen coat from a sheep in two minutes.

The sheep industry throughout Canada is in much better shape for development than it was a few years ago. There were 48,000 more sheep on Canadian farms at December 1, 1937, than there were the year before.

Canadian breeders have an enviable reputation throughout the world for their sheep. Last year sheep for breeding purposes were sent to New Zealand and Newfoundland and now there are enquiries coming from South America.

No. 272. Wed. June 29, 1938 -- Youth Training Programme

A year ago, one million dollars was set aside for the Dominion-Provincial youth training programme. Figures published in the Labour Gazette show the number of young men and women who received instruction during 1937. It was recorded that 55,457 young, unemployed needy Canadians between the ages of 18 and 30 were trained in 1,474 classes. Of these, 32,301 were men and 23,156 were women.

Slightly over 22 per cent of those who finished courses of a character to fit them for employment found work. This would appear to indicate that work can be found by **at least some of Canada's** unemployed young people provided they are equipped by training to do it. The belief that this was true was one of the important reasons for the Youth Training Programme.

There are four main classes of instruction given in this program. First, training projects of an occupational nature, such as household training, catering for tourists, rug making, dress making, salesmanship, stenography and power machine operating for women, and woodworking, radio servicing, motor mechanics, carpentry, cement working, electrical work, blacksmithing, egg and poultry grading for men.

The second class is learnership courses in industry including apprenticeship training. This provided for comparatively brief courses of training partly in classes and sometimes in an industrial plant. Where training was given in an industry its cost was defrayed under the programme.

The third group consists of work projects combining training with conservation and development of natural resources, such as forest conservation and mining. Mining activities, as might be expected, are restricted. Then the fourth project, physical training, has as its aim the maintenance of health and morale of Canadian youth.

The report shows that nearly 6,800 who received training were young men and women on relief.

No. 273. Thurs. June 30, 1938 -- A New Beaver Sanctuary

The great friend of the busy beaver died a few months ago. Grey Owl for years had been trying to teach trappers that the needless destruction of these animals would eventually mean their extinction. He met with some success. His lectures and stories about wild life interested people in Canada and other countries. Our own country became beaver-conscious, and the famous beaver colony in Prince Albert National Park is a memorial to his work. Now there is to be a new sanctuary made in northern Quebec.

This new haven will serve two purposes. In the first place, the number of beavers caught will be restricted and this will prevent them from being totally destroyed. The other purpose is to give the Indians a hunting ground, an urgent need caused by the intensive trapping by the white man.

The sanctuary will cover about one thousand square miles and the federal government has undertaken the task of trapping beavers and placing them on the reserve. A certain number of Indians will be hired to protect the animals. When there is a sufficient number of beavers in the sanctuary, only Indian trappers will be allowed to hunt them. Even then, a careful watch will be maintained to see that the privileges are not abused.



A report on fur production shows that since 1925 there has been a gradual decrease in the number of beavers caught each year. In the season 1925-26 there were 112,000 pelts compared with 45,000 in 1935-36. Prices were good until 1928 and then dropped to about one third in 1932. However, the value for a pelt in 1936 was two dollars higher than in the year before.

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Canada Statistics, Hon. B. A.

11-D-02

DEPARTMENT OF  
TRADE AND COMMERCE



**A FACT A DAY ABOUT CANADA**

FROM THE

**DOMINION BUREAU OF STATISTICS**

**JULY 1938**

**FOURTH SERIES**



Published by Authority of the HON. W.D. EULER, M.P.,  
Minister of Trade and Commerce.

Price 25 cents per annum



## Contents

- |      |                                      |      |                          |
|------|--------------------------------------|------|--------------------------|
| 274. | B.C. Fishing Boats.                  | 289. | Forest Fires.            |
| 275. | Tourist Attractions.                 | 290. | A Legend of Marengo.     |
| 276. | A New Settlement at Yellowknife Bay. | 291. | The Sociable Beaver.     |
| 277. | Rehabilitation Work - 1.             | 292. | Progressive Agriculture. |
| 278. | Rehabilitation Work - 2.             | 293. | Farm Woodlots.           |
| 279. | Sawdust for Heating.                 | 294. | Limestone.               |
| 280. | Canadian Reindeer.                   | 295. | Fish and Chips.          |
| 281. | Dominion Fish Hatcheries.            | 296. | Lunenburg Fleet.         |
| 282. | Canadian Sheep.                      | 297. | Smallpox.                |
| 283. | Point Pelee.                         | 298. | Indian Medicine.         |
| 284. | Summer Field Work.                   | 299. | White Man's Diseases.    |
| 285. | Old Age Pensions.                    | 300. | Waste Not, Want Not.     |
| 286. | The Canadian Indian.                 | 301. | Petroleum in the North.  |
| 287. | Indian Education.                    | 302. | Elbow Room for Trout.    |
| 288. | Fish Stories.                        | 303. | Bees and Honey.          |
|      |                                      | 304. | What War Does.           |

## A Fact a Day about Canada

from the

Dominion Bureau of Statistics

No. 274. Fri. July 1, 1938 -- B. C. Fishing Boats

British Columbia's fishing industry used a few more vessels and boats in catching fish and shellfish last year than were at work in 1936 and there was a modest increase in the number of fishermen working on the fleet. The capital investment in vessels and boats was over seven million dollars, which was one quarter of a million more than the year before.

Altogether, 8,402 vessels and boats were fishing in 1937, or nine or ten more than in 1936. There were 11,034 fishermen working from them, a total which was slightly more than 100 above the earlier year's figure. In each year, of course, the industry also employed a number of carrying vessels and scows.

Gasoline boats used by the fishermen increased sharply in number. All told, there were 6,858 of them, valued at more than four million dollars, the number showing an increase of about 250 over the 1936 total. This jump in the number of gas boats might be expected to be reflected in a substantial increase in the grand aggregate of fishing boats and vessels of all kinds, but there happened to be a similar drop in the number of sailboats and rowboats, with the net result, of course, that there was not much difference between 1937 and 1936 totals.

On the "gear" side of the story the big entries in each of the two years were those covering salmon drift nets, salmon purse seines, hand lines, and purse seines, respectively. The salmon drift nets decreased somewhat in number in 1937 and their total value, \$933,700, showed a drop of about \$93,000. More salmon purse seines were in use than in the year before and on the value side there was a gain of something more than \$50,000. Other seines and hand lines both decreased somewhat in number but value totals increased. //

No. 275. Sat. July 2, 1938 -- Tourist Attractions

"The National Parks of Canada" points out that: "Among Canada's greatest tourist attractions are her national parks, areas of outstanding scenic beauty or interest which have been set aside by statute for the use and enjoyment of the people. Including a total area of 12,525 square miles, these national reservations differ widely in character and vary in purpose. They conserve the wild life of Canada under natural conditions, preserve sites memorable in the nation's history, and help to maintain the primitive landscape in its original state. Not the least is their value as national recreational areas, for they provide, in contrasting settings, unequalled opportunities for the enjoyment of outdoor life."

For purposes of comparison, Canada's National Parks are divided into separate classes, which include the scenic and recreational parks, the wild animal parks or preserves, and the national historic parks. In the first group are Banff, Jasper, and Waterton Lakes National Parks in Alberta; Kootenay, Yoho, Glacier, and Mount Revelstoke National Parks in British Columbia; Prince Albert National Park in Saskatchewan, and Riding Mountain National Park in Manitoba. In Ontario are Point Pelee, Georgian Bay Islands, and St. Lawrence Islands National Parks; recreational areas



typical of the region. Recent additions to the system are Cape Breton Highlands National Park in Nova Scotia, and Prince Edward Island National Park.

The special wild animal parks which exist for the protection of once nearly extinct species such as the buffalo, wapiti or elk, and the pronghorned antelope, were established as preserves for these interesting creatures whose former habitat disappeared with the settlement of the west.

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No. 276. Sun. July 3, 1938 -- A New Settlement at Yellowknife Bay

Yellowknife Bay is situated on the north arm of Great Slave Lake. It was named after the Yellowknife tribe of Indians, a tribe whose numbers have dwindled to about 150. They were named after the knives of native copper which they once carried.

The prospect of new discoveries of minerals in this area has caused an increase in population, mostly miners and traders. In order to accommodate the incoming settlers, the Department of Mines and Resources is endeavouring to plan an orderly settlement by surveying an area of approximately forty acres to be subdivided into 125 lots.

During the winter months there were 350 people in the settlement and since the spring break-up the number is increasing. Already a drug-store, a post office, three wireless stations, a Royal Canadian Mounted Police detachment, a branch of the Canadian Bank of Commerce, several small stores and restaurants and a hotel are located at Yellowknife. Two licences to operate motion picture theatres have been issued. A lawyer has opened an office in the settlement.

Yellowknife is accessible by both water and air. The bay provides a good aeroplane harbour for both winter and summer use.

The Yukon and Northwest Territories are now supplying silver, gold, copper, lead and radium ore to Canada's vast mineral industry. Last year's mineral production from this northern area was valued at close to four million dollars, a gain over 1936 of  $1\frac{1}{2}$  million dollars.

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No. 277. Mon. July 4, 1938 -- Rehabilitation Work - 1

A comprehensive outline of the difficulties and problems which are being successfully combated by the Prairie Farm Rehabilitation Board in the rehabilitation of the Prairie drought areas was given in a recent issue of "Scientific Agriculture" by Dr. E. S. Archibald, Director, Dominion Experimental Farms Service and Chairman, Land Utilization Committee, Prairie Farm Rehabilitation Act. The agricultural area in the Prairie Provinces comprises 55,700,000 acres of the 74,000,000 acres of cultivated land in Canada. Fully 54,600,000 acres are in grain and fallow, of which 13,000,000 acres are fallowed annually. Again, of the 40,000,000 acres of range and unimproved pasture in Canada, fully 33,000,000 acres are in the Prairie Provinces.

It should be remembered, states Dr. Archibald, that the drought area of recent years has been settled during the last 20 to 40 years during a cycle of years when

rainfall was normal. The past eight years have been subnormal, yet it should not be forgotten that this area has contributed the largest percentage of wealth in wheat alone during the past 20 years to the sum of \$7,000,000,000. Vast values of other grains, beef, sheep, bacon, and poultry products also come from this area. What has been done, will again be produced. Hence the great national importance of replanned, readjusted, and rehabilitated agriculture in this area.

Succeeding years of disastrous drought, grasshopper damage, soil drifting, and necessary large scale relief to farmers in central and southern Saskatchewan, southwestern Manitoba, and southern Alberta, covering a period of five years, inclusive of 1934, convinced the Dominion Government that drastic and large scale rehabilitation measures were necessary if the enormous earning power of Western Canada, due to a population of most capable farmers in their particular type of production, was to be retained.

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No. 278. Tues. July 5, 1938 -- Rehabilitation Work - 2

In April, 1935, an act called the "Prairie Farm Rehabilitation Act" was passed unanimously in the House of Commons. The organization of Dominion Departmental forces, with wherever possible the co-operation of Provincial Departments of Agriculture and Lands, was immediately undertaken. The many lines of endeavour fall into three general groups: (a) cultural; (b) land utilization, including the administration of re-organized agricultural community work, and (c) water development.

Cultural includes research, demonstrations, co-operative assistance to farmers in soil drifting control, soils research, pasture improvement, also soils, pasture, insect and economic surveys, comprising District Experiment Substations, reclamation stations, grass seeding, agricultural improvement associations, tree planting, soil drifting, aerial surveys, new rust resistant grains.

Under land utilization, the solution of the problem of farmers who have been located on light poor soils incapable of maintaining an agricultural population obviously is to determine the type of agriculture to which this land may again be adapted, entailing the establishment of community pastures, reserve grazing areas, staff organization, irrigation districts and feed and fodder relief inspection.

Water development has been one of the major activities in assisting the largest number of farmers with the making of dugouts to retain runoff water for domestic purposes and for livestock, small stock watering dams, small irrigation dams, community and municipal water projects, and large water development projects for irrigation, many of which have been completed and are now in full use.

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No. 279. Wed. July 6, 1938 -- Sawdust for Heating

Until lately sawdust has been more or less a waste product. With the discoveries made in the Forest Products Laboratories of the Department of Mines and Resources in co-operation with combustion engineers, a very practical and profitable use has been found for it.

With the aid of an auxilliary grate, sawdust can be used for fuel in any standard



heating unit. It burns freely, requires little attention and makes a fire which is easily controlled. Other points in its favour are its cheapness, lightness and the fact that it is very low in ash content.

Already in British Columbia more than 15,000 homes, offices, theatres and other buildings are using sawdust for heating purposes.

Think of the amount of sawdust produced by the trees cut down and sawn into lumber every year in Canada. The Forestry Branch estimates that two billion cubic feet of standing timber is the annual harvest. That amount of timber would make a pile as big as 800,000 box cars piled together.

Formerly regarded as unavoidable waste, sawdust can now be turned to a profit for millowners. It is estimated by the Forest Products Laboratories that the sawdust produced annually in Canadian sawmills is sufficient to cover fifteen or twenty city blocks to a depth of one hundred feet. Thousands of dollars will now be saved from the refuse burners.

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No. 280. Thurs. July 7, 1938 --- Canadian Reindeer

Progress reports on the fawning of Canada's reindeer herd, just received by the Department of Mines and Resources, reveal that approximately thirteen hundred fawns had been added to the herd at the end of the first week of May. Fawning began about the first of April and was expected to continue until about the end of May. Complete figures will not be available until after the July round-up, but a marked increase over the 1,181 deer born last year is indicated.

The herd has shown steady growth since the original 2,370 reindeer were delivered to the reindeer station in the Mackenzie Delta area in 1935. Notwithstanding the usual losses incidental to reindeer herding, and the annual slaughter of surplus stock (steers and aged females) to provide food and clothing for local needs, the deer numbered more than four thousand at the last round-up. The animals as a whole have adapted themselves to the climate and local conditions on the reservation, and the herd has now developed to the stage where extension of the reindeer industry in the interests of the Eskimo population is receiving serious consideration.

Several Eskimos have been in training with the Government herd, but it is now proposed to establish a native herd and to increase the opportunities for the younger natives to learn reindeer husbandry. The plan being considered at present is to separate eight or nine hundred deer from the Government herd and place them in charge of two native families under the supervision of a Government officer. These deer would then be regarded as a native herd.

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No. 281. Fri. July 8, 1938 --- Dominion Fish Hatcheries

Helping to maintain and increase Canada's stocks of fish, the sixteen main hatcheries and several subsidiary establishments operated by the fish culture workers of the Dominion Department of Fisheries distributed last year nearly 61,832,000 fish eggs, baby fish and older fish in those parts of the country where the fisheries are under federal administration. Hatcheries were operated in the three Maritime Provinces and in British Columbia. At the end of the year, by the way, the

departmental hatcheries concerned with sport fish propagation in British Columbia were transferred to the provincial authorities, who have to do with sport fishing in non-tidal waters.

During the early part of 1937 the department also directed the operation of hatcheries in Alberta's national parks, but at the expense of the National Parks Bureau. At the end of March, however, the Parks Bureau assumed the entire responsibility in connection with the operation of these plants.

Species propagated at departmental hatcheries in 1937 included, in the east, Atlantic salmon, Ouananiche, Sebago salmon, and Speckled, Rainbow, Kamloops and Salmon-trout. In British Columbia the hatcheries handled Sockeye, Coho and Kennerly's salmon as well as Steelhead, Kamloops, Speckled and Cut-throat trout. Outside of national parks and those areas where fisheries administration is a federal function, the fish culture work carried on during the year was conducted by provincial authorities.

#### No. 282. Sat. July 9, 1938 -- Canadian Sheep

We are well aware that Canada is not a sheep raising country in the sense that some others are, such as New Zealand and Australia, the United Kingdom, etc. Our consumption of lamb and mutton is much less than that of very many countries.

Why that is so is not easy to understand, but it is the fact. However, here is what Dr. Barton, the Deputy Minister of Agriculture, said to some sheepmen recently at a meeting held in Ottawa:

"There will always be a place for wool, and always be a place for lamb as meat; there never will be substitutes for them. Lamb as a meat will withstand any competition.

"The sheep industry throughout Canada is now in a reasonably healthy condition, and it is today in much better shape for development than it was a few years ago. The Dominion Department of Agriculture co-operating with the Provincial Government and other agencies have done something to bring this situation about. In several respects the sheep industry has outdistanced some other branches of the livestock industry in Canada. There has been notable progress in the handling of wool, though the market may not always be what sheep raisers would like. The world has grown smaller from the standpoint of market outlets. Everyone now has access to it. Competition is becoming keener; in fact in some respects there is almost a war at times in regard to price.

"It is encouraging to see the interest the young people were taking in sheep. This was particularly in evidence in the Ottawa Valley where a sheep club had been formed. Canadian breeders have an enviable reputation throughout the world. They have a great heritage to inspire them. Last year sheep from Canada were exported to New Zealand and Newfoundland, and now there are inquiries coming from South America." He referred to the outstanding success that Canadian exhibitors have attained year after year at the International Live Stock Exposition at Chicago.



No. 283. Sun. July 10, 1938 -- Point Pelee

As many as a thousand whistling swans and a like number of geese were recently seen at one time in the ponds and marshes of Point Pelee National Park, in southern Ontario. Improved water conditions in the marshland during the last year have resulted in a notable increase in water fowl, and all over the water area are thousands of wild ducks which have become so tame that they approach within a hundred feet of the park office and roadway and do not appear to frighten easily. Other fowl and birds that inhabit the meadows and woodlands of the park appear to be exceptionally plentiful this spring, with the pheasants so numerous that it is not uncommon in driving a mile to see fifty or more of these birds. Starlings, which go up in crowds of hundreds, are fairly abundant, and several small bevies of quail have been noted. An outstanding increase of muskrats is reported, while other wild life, such as raccoon, rabbit, fox, and black and grey squirrel, is up to normal.

Point Pelee National Park is a striking illustration of the value of even a small national park in a heavily populated area, both as a wild life sanctuary and a vacation land. Occupying an area of only about six square miles and easily accessible from the great industrial centres of Detroit and Windsor, this picturesque region attracts in the neighbourhood of 300,000 people yearly and, at the same time, literally teems with wild life.

Lying as it does within the main route followed by thousands of wild fowl and other birds in their northern and southern migrations, the park forms one of the outstanding sanctuaries for birds in Eastern Canada. The interior of the park contains many acres of marshland, where wild ducks, Canada geese, and swans find shelter and food among the beds of wild rice so plentiful there. Many southern species of bird life not usually found in other Canadian localities are either common residents or regular migrants at Point Pelee.

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No. 284. Mon. July 11, 1938 -- Summer Field Work

There are forty-one parties engaged in geological investigations and seventeen in topographical mapping in little known sections of the country this summer. Of the former, nine are in British Columbia, two in Alberta, four in Saskatchewan, five in Manitoba, four in Ontario, six in Quebec, three in New Brunswick, two in Nova Scotia, one in Yukon, and four in the Northwest Territories. Additional to these, one party is engaged in the collection of mineral specimens in eastern Canada.

Three of the seventeen topographical parties have been assigned to British Columbia, four to Alberta, one to Saskatchewan, three to Quebec, one to Nova Scotia, three to the Northwest Territories, and one to Yukon. In addition, a party is engaged in physiographic studies in the eastern Arctic.

Five parties placed in the field by the National Museum of Canada will be engaged chiefly in the gathering of new information on Canadian fauna, flora, and native races, and in the collection of new specimens for the Museum. The program includes biological and botanical investigations in British Columbia, Alberta, Manitoba, and Ontario, as well as archaeological studies in Ontario.

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No. 285. Tues. July 12, 1938 -- Old Age Pensions

The Old Age Pension is payable to any British subject of seventy years and over who is not receiving an income of as much as \$365 a year. He or she must have resided in Canada for twenty years and must have lived in the province in which the application is made for five years immediately preceding the date of the commencement of pension.

The Act also provides that an applicant must not have assigned or transferred property for the purpose of qualifying for a pension. Indians are not eligible to receive old age pensions.

The provinces are charged with the payment of pensions, the Dominion government reimbursing each province quarterly, to the extent of 75 percent of the net cost. Previous to 1931 the Dominion paid one-half of the amount. All the provinces are operating under this agreement.

In 1927 British Columbia was the first to have this Act become effective, followed by Manitoba and Saskatchewan the next year and by Ontario, Alberta and the Northwest Territories in 1929. Payment of pensions commenced in Prince Edward Island in 1933, in Nova Scotia in 1934 and in New Brunswick and Quebec in 1936.

At March 1, 1938, the total number of pensioners was about 176,000. The Dominion Government has contributed over 123 million dollars to these pensions since the inception of the Act. Last year's contribution was 28½ million dollars.

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No. 286. Wed. July 13, 1938 -- The Canadian Indian

There is no foundation for the common belief that the Indians of Canada are a vanishing race. While their numbers have varied considerably during the last thirty years, declining from 110,000 in 1907 to 104,000 in 1924, latest returns show that there are now approximately 114,000 Indians resident in the Dominion.

Like those of other races, Indian problems are determined largely by the climatic and physical features of the areas in which they live. In southern Ontario, southern Quebec, and parts of the Maritime Provinces the Indians are engaged largely in agriculture, and some of them find employment in nearby industrial centres. Another group occupies the great hinterland comprising the northern parts of the provinces from the north shores of the St. Lawrence River to the Mackenzie Valley and Yukon Territory. These people are dependent mainly on hunting and trapping for their livelihood, and the Department has set aside large tracts of land in certain provinces, where only the Indians are permitted to hunt and trap. Efforts are being made to have this policy extended wherever feasible, having regard to the interests both of the Indians and of wild life conservation.

A third group of Indians is found in the Great Plains region and in the foothills country of Alberta, where their lands are suitable for agriculture and stock-raising. In 1878, when the buffalo herds were virtually wiped out, these Indians had to turn to farming and ranching, and within two generations a large number of them have developed into prosperous, self-reliant farmers. Still another group of Indians inhabit the northwestern coast of British Columbia. These people had developed a highly organized culture before the appearance of the white man. They are fisher-folk, trained to the sea, and for many years have been prominent in the fishing industry.



No. 287. Thurs. July 14, 1938 -- Indian Education

Marked progress has been made in the education of Indian children in Canada since the inauguration of day and residential schools for them, and in almost every year increases have been recorded both in the number of pupils enrolled and in the percentage of attendance. Enrolments now total 18,297 Indian children, of which 9,040 are in residential schools. There are 80 residential schools, 275 day schools, and 10 combined Indian and white schools in operation throughout the Dominion under the supervision of the Department of Mines and Resources, which spent \$1,821,000 on Indian education during the last fiscal year.

Progressive attempts are being made to bring the Indian educational policy into closer conformity with the actual life needs of Indian children. Steadily increasing emphasis has been placed on the importance of manual training, and material has been supplied in an attempt to encourage gardening and carpentry work among boys, and dressmaking, crochet work, and elementary domestic science among girls. Special emphasis is placed on hunting and trapping in areas where the livelihood of the Indians depends largely upon the game resources. An opportunity for practical training is afforded to boys of teen age who are attending school by granting them special leave from their classes so that they may accompany the hunting and trapping expeditions.

New school buildings, modern in every respect, are replacing old structures, and better qualified teachers are being attracted to the Indian schools. Plans have been prepared for the construction of day schools equipped to provide an educational program designed to meet the needs peculiar to the reserves on which such schools are established. It is hoped that these schools will become focal points in community life-- centres to which Indian children and adults will turn for guidance, instruction and inspiration.

The response of the Indians to the efforts to advance them to a position of independence and self-support has been a major factor in the success of the work. An encouraging feature has been the increasing demands for agricultural and homemaking short courses and the tendency and willingness of the Indians to recognize the value and distinctiveness of their arts and crafts. Consideration has been given to ways and means whereby the Indian population can be encouraged to conserve still further their ancient crafts and thus increase the cultural life of the nation.

No. 288. Fri. July 15, 1938 -- Fish Stories

The Department of Fisheries makes a very interesting series of fish stories, such as the following:

"Fish foods are one of the best food sources of calcium, which is necessary for the development, growth and maintenance of bones and teeth in the human body."-- True? False?

True. Fish foods are also valuable sources of such other important mineral nutrients as iodine, iron, phosphorus, and copper.

"Canada's lobster fishery is entirely an Atlantic Coast fishery but it is more important than the lobster fishery of any other country." True? False?

True. The Dominion's lobster catch is much larger than that of any other nation and in recent years it has been worth about \$4,400,000 annually in marketed value.

"Fish foods, in general, are more easily digested than meats."— True? False?

True. Fish tissues are tender because fish, living in water and buoyed up by the water, do not have to develop the strong muscles and ligaments which land animals must have.

"Canadian sardines contain no other vitamin than 'A'".— True? False?

False. Little herring are the raw material of Canada's sardine canning industry and sea herring contain at least three vitamins— A, B and D.

"Cod, haddock, hake and cusk, and pollock are the fish used in Canada's dried fish industry, an Atlantic Coast industry." — True? False?

True. Most of the dried fish is dried cod but cusk, haddock, hake and pollock are also put up in dried form. British Columbia markets drysalted herring and salmon but "drying" and "drysalting" are different processes.

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No. 289. Sat. July 16, 1938 — Forest Fires

The great forest fires that have occurred on Vancouver Island and the fact that this is the holiday season suggested that another reference to forest fires is timely.

In an appeal for forest fire prevention, the Department of Mines and Resources, Ottawa, points out that forest fires in Canada during the last ten years have caused a direct loss of more than forty-eight million dollars. This statement does not tell the whole story, as it is impossible to estimate in dollars and cents the indirect losses in soil fertility and scenic value and the damage caused by floods, soil erosion, and the lowering of water levels in streams, all of which are the inevitable results of extreme denudation.

Forest fires are by no means a modern evil, as scars on ancient trees give mute evidence of forest fires long before the advent of civilized man. Most of these pre-historic fires were probably started from lightning, but in recent years with the improvements in transportation facilities and the increasing use of the forests for recreational purposes, eighty-five per cent of all forest fires have been caused by man, either wilfully or by carelessness.

The high percentage of man-caused fires can be greatly reduced by the exercise of caution on the part of the public, and all those who travel in or near the forest are strongly urged to be careful with fire at all times. The late spring is one of the greatest danger periods in the year, and various forest protection agencies throughout Canada including Dominion, provincial and private, stand ready to face the danger of fire which follows the drying winds of late April and early May. These winds remove the moisture from the previous year's dead vegetation, leaving it dry and highly inflammable. Not until the June rains and the advent of new green vegetation will this fire hazard subside. Two other danger periods when fires will spread rapidly and assume large proportions are in the summer months during protracted periods of dry hot weather, and again in the fall, after the ground vegetation has been killed by early frosts and subsequently dried out by high winds and hot sunny days.



In providing the raw material for Canada's third primary industry, the forests are a great source of national wealth and employment, and the problem of safe-guarding this great heritage against the constant threat of destruction by fire is therefore of utmost importance to all. The forest resources are so interlocked with the many phases of personal and industrial life of the country that to destroy them wantonly, or to stand heedlessly by while they are devoured by flames, is to impair the basis of the nation's social and economic existence.

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No. 290. Sun. July 17, 1938 -- A Legend of Marengo

Canada has been devoting a great deal of attention to the development of her poultry industry. There are about 39,564,000 head of poultry on Canadian farms. Recently there was held in Montreal a banquet in connection with the first Poultry Promotion Congress under the auspices of the Canadian Produce Association. Not only did chicken-- as was natural-- prove the masterpiece of the menu, but Monsieur Thomas, a noted chef, who fried them, was asked to give an address on the value and utility of poultry at the dinner table. He enlivened his remarks by giving the story of the origin of fried chicken, describing it as the legend of "Chicken Saute Marengo".

He said that on June 14, 1800, Napoleon in one of his lightning strokes defeated the Austrians at Marengo, and in celebration of his victory invited his leading generals to dinner that evening.

Unfortunately the field kitchen had been unable to keep pace with the rapid advance, although Napoleon's chef, Dunant, in a light van, had pressed forward with the staff. The van, however, was not provisioned and Dunant was faced with an almost unsurmountable problem. Napoleon had said dinner, and dinner there would have to be. Dunant spied a farm house in the distance and at once dispatched two battle-scarred soldiers of Napoleon's escort to see what they could find. The old soldiers were hard put to it but they managed to way-lay three wandering chickens and gather a few rare tomatoes and a bunch of garlic. With these materials Napoleon's chef had to uphold his reputation and comply with the Imperial order.

The chickens were hastily killed, plucked and cut into pieces. Meanwhile oil was being heated on an improvised stove, and in no time the pieces of chicken were browning and simmering. With a few drops of brandy sprinkled on top, the dinner was served and was highly praised by Napoleon and his staff.

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No. 291. Mon. July 18, 1938 -- The Sociable Beaver

Experiences in Canada's National Parks have demonstrated that the beaver, long regarded as an animal which very definitely preferred his own company to that of human beings, is really more sociable with man than has been supposed. The beaver, like the other so-called "wild" animals of Canada, responds to the human friendliness which he finds in the national parks. He is an intelligent animal, very quick to sense danger, but once convinced that humans mean him no harm, he proceeds about his business.

However, this fraternal feeling is not confined solely to the parks. Now comes

word from Red Deer, Alberta, that beaver, operating in Waskasoo Creek, have actually invaded the city limits.

Few animals can be regarded as so typically Canadian as the beaver. From the earliest times he has been associated with the history of Canada. His industry and intelligence are held to represent outstanding qualities of Canadian character. In preserving him, and bringing his true qualities to public recognition, the national parks have done a national service.

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No. 292. Tues. July 19, 1938 -- Progressive Agriculture

The Dominion Experimental Farms Service has 183 illustration stations and 47 district Experiment Sub-stations. Nineteen of these stations are in British Columbia, 24 in Alberta, 51 in Saskatchewan, 17 in Manitoba, 17 in Ontario, 51 in Quebec, 20 in New Brunswick, 17 in Nova Scotia, and 14 in Prince Edward Island.

By visiting the illustration farm annually on a specified field day, residents of the countryside are brought face to face with what is being done in progressive agriculture. At the field day they discuss the work, ask questions, and listen to lectures which impart the findings, figures and facts that have a definite bearing on local problems and conditions. Neighbouring farmers may also obtain from the operator of the illustration farm pure seed grain and breeding stock for improvement of their home produce.

In the illustration station program of farm organization and development, the sale of livestock and dairy products makes up the principal source of revenue of 131 of the 183 illustration stations and the 47 district experiment sub-stations. On the remainder, specialized grain farming, which includes the sale of wheat, oats and barley, is the chief farm income. On many of the 131 stations, particularly on those that have been in operation for a considerable period, well-bred high-producing herds now appear.

On some farms in Canada, the number of milch cows kept is small in comparison with the size of the farm, and in consequence of the relatively low production, the cash return is inadequate to meet living expenses, taxes, and other necessary expenses. Hence, in the illustration station program, the aim is to develop sufficient revenue from the sale of milk, beef, pork products, poultry or cash crops, such as cereals, grasses, and clovers to meet the necessary operating expenditures, which include comfortable support of the home on the farm.

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No. 293. Wed. July 20, 1938 -- Farm Woodlots

Farm woodlots contribute about one-third of the volume of Canada's total forest production. As statistics for these special forest areas can only be obtained from the decennial census, the most recent figures available are those for 1930, in which year the cut of all forest products from farm woodlots amounted to 33 per cent of the total volume cut in Canada, and accounted for 21 per cent of the total value of primary forest products. Forest products from farms in 1930 included firewood valued at \$29,129,280, logs for lumber \$5,938,544, pulpwood \$5,662,302, maple sugar



and syrup \$5,067,696, fence posts \$1,024,697, railway ties \$546,432, telephone poles \$358,121, and other products to the value of \$933,066, which made a grand total of \$46,660,138.

Owing to their accessibility farm woodlots are capable of more intensive culture by which higher yields and higher values can be secured than in extensive forests. A well-managed woodlot consisting of hardwoods can produce a cord of fuelwood per acre per annum in perpetuity. From his farm forest the farmer can raise most, if not all, of the fuel he requires, thereby reducing greatly his cash outlay, and at the same time providing himself with employment at a time when there is little other activity on the farm. Considering the small amount of labour and expense involved the yield from woodlots compares favourably with field crops. Compared with anthracite coal at \$16.50 per ton hardwood has a fuel value of about \$10 to \$12 per cord, while the average value of all field crops in 1930 was \$26.10 per acre-- \$12.26 per acre for wheat, \$14.74 for barley and \$17.22 for oats.

Some authorities claim that for the well-balanced operation of a farm from 10 to 20 per cent of the land should be devoted to forest. In an investigation conducted in Ontario it was found that in counties which had the largest percentage of well-managed woodlots the agricultural population was more prosperous than in those which lacked sufficient woodlots.

Apart from their importance to agricultural economy, farm woodlots contribute to wild life resources, and maintain a much higher population of insect-eating birds, song birds, and upland game birds than does either a bare, de-forested area or a large tract of uniform woodland. Birds nesting in woods and shelter-belts aid in controlling insects, and thus serve to protect the farmer against serious losses from the depredations of insect pests.

#### No. 294. Thurs. July 21, 1938. -- Limestone

Limestone, which constitutes about 87 per cent of the Canadian stone production, surpasses any other rock in the number and diversity of its uses and in the quantity consumed for industrial purposes. It is marketed in a variety of forms ranging from large squared blocks of dimension stone, for use in construction, to extremely fine dust, used chiefly as a mineral filler. The bulk of the output is crushed and screened for use as road metal, concrete aggregate, railroad ballast, and as flux in metallurgical plants.

Large quantities are also marketed in the crude or broken state for use in chemical and metallurgical industries. In the rock wool industry-- the newest of the limestone industries-- siliceous and argillaceous dolomitic limestone, or calcium limestone, is converted into a light, fibrous insulating material known as "rock wool" which is being widely used as a thermal and sound insulation, and as an acoustical material.

A use of limestone that is capable of enormous development is in agriculture. Though the necessity of applying limestone or lime to agricultural land in order to maintain or increase soil fertility has been emphasized for years by authorities on agriculture the quantity so used in Canada is still very small, whereas if the proper quantity were applied it would constitute one of the principal outlets.

A number of new limestone quarries were opened in Canada during 1937, and sev-

eral quarries that had been idle for some time were reopened. Limestone is quarried in all provinces except Prince Edward Island and Saskatchewan, and the Canadian production in 1937 for general use, exclusive of that used for building stone, lime, and cement is estimated at 5,190,000 tons valued at \$3,990,000 compared with 3,704,451 tons valued at \$2,894,859 in 1936. The production for all purposes in 1937 is estimated at 7,700,000 tons. The increased production was largely from quarries in Ontario and Quebec, which supply the greater part of the output, and was due in a large measure to an increased demand for limestone for road construction, railway ballast, and for use in the chemical and metallurgical industries.

No. 295. Fri. July 22, 1938 -- Fish and Chips

A recipe these hot summer days may be in order. It relates to fish and chips, a dish the Britishers have made famous. A Canadian tourist tells us with poetic licence that it saved his life one day lately when he was at the point of starvation.

Cooking Canadian fish for use in fish and chips is very simple. The desired quantity of fresh fish is cut into pieces of convenient size, each piece is dipped into batter, and then dropped into smoking hot fat and cooked until the batter covering takes on a light brown colour. All that then remains to be done is to drain the pieces, put them on the serving dish, and bring them to the table with the potato chips.

Different cooks sometimes prefer different kinds of batter for using in cooking fish in deep fat but one recipe suggested by a cookery demonstrator on the staff of the Dominion Department of Fisheries is as follows: Take a cup of flour, three-quarters of a cup of milk, one egg, a teaspoonful of olive oil, and a quarter of a teaspoon of salt; beat the egg slightly, add the salt, oil, milk and flour, and mix well.

Numbers of restaurants in Canada frequently have fish and chips on their menus, and others could follow their example with profit. The management of one successful group of restaurants in Central Canada, for instance, makes fish and chips one of its feature dishes. In preparing, say, thirty portions at one of the restaurants in the group or chain the following ingredients are used: Eight pounds of Canadian fish and a batter made by mixing a pound and a quarter of flour, a pint and a half of milk, two eggs, and a teaspoon and a half of baking powder. It is essential, the chef in charge says, that the batter be allowed to stand for one hour before it is used.

The Fisheries Department does not say what is the best variety for Fish and Chips -- no doubt, taste is all. Suppose whitefish is used, it is interesting to note that whitefish is the most valuable species taken in Canadian inland waters. It occurs in each of the provinces having commercial fresh water fisheries. The catch last year was valued at over one and a half million dollars.



No. 296. Sat. July 23, 1938 -- The Lunenburg Fleet

Famed in the fishing industry for generations, the "lunenburg fleet" comprising sixty-nine vessels in 1936 was slightly larger than it had been in the year before, but fewer of the schooners engaged in the "salt fishing" which has long been the traditional enterprise of the deep-sea craft based at this Nova Scotia seaport. Of late years there has been more and more of a trend toward "fresh fishing" on the part of the Lunenburg vessels, or in other words, a trend toward more fishing for the fresh fish trade rather than concentration almost wholly upon making catches for use in the trade in dried fish.

While fewer Lunenburg vessels went salt fishing last year and their total catch decreased, their average catch was higher. From the "frozen baiting" trip, the spring trip, and the summer trip alike the landings showed an increase per schooner. All told, the three trips to the banks yielded the fleet about 7,965,000 pounds of cod, a decrease of approximately 375,000 pounds compared with 1935. Most of the production was credited to the summer trip when 25 vessels brought ashore about 5,555,000 pounds, or a little more than was landed by 28 vessels in the corresponding trip of 1935.

Another Atlantic coast fleet of importance, though perhaps less well known than the Lunenburg fleet, is based in the Caraquet district of northeastern New Brunswick. With 121 vessels in 1936 it is bigger in numbers than the Lunenburg group of deep-sea craft, but most of the Lunenburg schooners are larger.

Canada has perhaps the largest fishing grounds in the world, and her list of food fishes embraces nearly sixty different kinds. Unrevised figures place the 1936 sea fisheries catch at 980,000,000 pounds with a landed value of more than \$16,600,000. Canada's export trade in fisheries products in 1936 exceeded \$25,000,000.

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No. 297. Sun. July 24, 1938 -- Smallpox

The Canadian Press carried a story recently which stated that a member of the crew of a vessel arriving at Halifax had died of smallpox. Fear of the disease sent almost half the population of the city in haste to the physicians for vaccination.

Smallpox is a dreaded disease which at one time in Canada, as in other countries, carried off great numbers of the people. When a case of it occurred in a community the people knew great fear. Those who recovered usually carried to the grave with them deeply pitted marks upon their faces. Early in the present century these pitted faces were quite common in Canada. Vaccination has combatted so successfully the ravages of the disease that there were only two deaths from smallpox in 1936 and two the year before.

Dr. John J. Heagerty in his book "Four Centuries of Medical History in Canada" mentions that the earliest records of smallpox among the Indians of Canada are to be found in the Jesuit Relations of 1635. The Indians believed that the disease was given them by the Jesuits and resolved upon their massacre. Near the beginning of last century, Dr. Jenner, the Edinburgh physician who discovered the antidote, sent to the Five Nations a copy of his book for their instruction in using vaccine. That book is now in the possession of the Dominion Archives at Ottawa.

Our control of most diseases nowadays is so well nigh perfect that it is difficult for us to realize the extent to which epidemics spread before we had adequate means of checking them. For example, in the year 1800 there was a smallpox outbreak in Nova Scotia and before twelve months had passed there were eight thousand cases.

The first outbreak of smallpox in the Western Hemisphere, says Dr. Heagerty, occurred in the West Indies in 1507, just fifteen years after the discovery of America; whole tribes were exterminated. The disease was taken to Mexico by Spanish soldiers in 1520 and the deaths among Indians, it is said, numbered  $3\frac{1}{2}$  million. The celebrated Pocahontas, the friend of the Virginian settlers, died of smallpox in 1616 in her 22nd year. She contracted the disease during a visit to England. In 1633 the distemper caused terrible havoc among the Indians of Massachusetts. "The Hurons were decimated by the smallpox and the Iroquois", says an old account of 1640. A quarter of a century later more than one thousand Iroquois died of the same disease. The Abenakis were heavy sufferers.

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No. 298. Mon. July 25, 1938 -- Indian Medicine

Dr. Heagerty tells us that when the French reached Canada, accompanied as they were by skilful doctors and nursing Sisters, they found the Indians possessed of a knowledge of medicine and surgery that was in some ways the equal of their own. In their application of the properties of the vegetable kingdom they were probably superior to the French physicians. They had remedies for each and every occasion, expectorants, emetics, purgatives and astringents, as well as other treatments that required advanced skill and knowledge. Their medicine man, much exploited by the writer of fiction, was only a concession to superstition and not the curator of their medical knowledge. Their system of medicine was an unwritten one that was handed down from generation to generation and, in spite of the manifold defects of such a system, was surprisingly complete. In the hands of the women of the tribe was placed the treatment and care of the sick.

In contrast with smallpox, which was brought here by the white man, mal de terre, or scurvy, might be described as a disease native to North America. Jacques Cartier lost almost all his people the first winter he passed in this country. It was a common disease and was called land disease. Scurvy broke out among the Pilgrims after their arrival in New England in 1621. In two or three months half of their company died. The Jesuits frequently suffered from it.

During the past century the presence of scurvy in Canada was associated chiefly with lumber camps. A continuous diet of bacon, beans and coffee, with an absence of fresh vegetables during the winter months, favoured its existence. Even today we have scurvy occasionally but in most cases the disease is recognized before it has progressed very far and the horrible type of case seen by the early settlers is a thing of the past. It made its appearance in the drought belt of the Prairies last year among people on relief. It was due to the scarcity of fruit and vegetables. Governmental action was taken at once. There were twelve deaths from scurvy in Canada in 1936.

We get a picture of the advance medical science has made since the days of the early settlers when we are able to say that in the last year or so there have been no deaths from leprosy and none from bubonic plague.

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No. 299. Tues. July 26, 1938 --- White Man's Disease

It will be seen from the foregoing how powerful a part the white man's diseases have played in destroying and exterminating the great Indian tribes. The tragedy was that the Indians were unable to meet the requirements which the malady demanded to effect a cure. They had no knowledge whatever of that plague.

Leprosy is another of the very dreadful diseases. It has taken a heavy toll of life in days gone by. Robert the Bruce died of it. So far as is known it appeared for the first time in Canada at Tracadie, New Brunswick, in 1815. From 1815 to 1924, 319 lepers have been admitted to the lazarette.

Cases of bubonic plague were brought by the King's ships to Canada in 1710, 1718 and 1740, and caused epidemics. The fleas of rats and other rodents are the carriers, just as mosquitos are the carriers of yellow fever. At the present time the Department of Health is making a study in British Columbia and Alberta to ascertain if ground rodent fleas in these provinces are infected with the plague bacillus. Plague infected fleas have been found on ground rodents in California, Washington, Montana and Utah. About twenty years ago there were two cases on a ship sailing from Montreal to Bristol. The ship had sailed originally from Alexandria in Egypt. All ships entering Canadian ports are now obliged to undergo fumigation at least once a year.

Further elucidation of the advance of medical science which is reflected in the Vital Statistics issued by the Bureau may be obtained from Dr. Heagerty's two valuable volumes entitled "Four Centuries of Medical History in Canada". They should be read by everyone interested in the progress and development of this Dominion. They are a revelation.

No. 300. Wed. July 27, 1938 --- Waste Not, Want Not

We all know the jingle which deploras the throwing away of potato skins, for--

"The skins feed the pigs and the pigs feed you,  
Dear beloved brother is that not quite true?"

Canada has taken the juncture to heart and is applying the waste not, want not theory to her apple trees. A project is under consideration for the construction of a pulp and paper mill in Canada in which certain expensive grades of paper would be produced from prunings of apple trees.

It is estimated that from 1,500 to 4,000 lbs. of prunings are produced on each acre of orchard each year, and that as the Dominion has millions of acres of fruit lands concentrated in closely planted areas, raw material might be laid down in the proposed mills far more cheaply than existing sources of material.

It has yet to be proved that the apple prunings are better adapted for such high grade papers as cigarettes and magazines than wood pulp, but the fact that the experiment is to be made at all shows how wide is the sphere of activity of the Canadian research worker.

No. 301. Thurs. July 28, 1938 -- Petroleum in the North

Petroleum products are playing an important part in the opening of Canada's newest mining frontier in the Northwest Territories, where the time-honoured means of transportation by dog and canoe have been supplanted largely by airplane and motor boat. Modern transportation methods have been of invaluable aid in mineral developments in the North and this vast expanse, embracing more than one third of all Canada, now seems destined to play an important role in the economic life of the Dominion. Regions rich in minerals of economic importance are now served by fleets of modern-type aircraft equipped with skis in winter and pontoons in summer, while steam and Diesel powered boats and tugs tow freight-laden scows and barges northward down the Mackenzie River route during the navigation season.

For the transportation requirements of a country so vast in extent as the Northwest Territories, an ample supply of gasoline is required, and to meet this demand caches of gasoline are strategically placed throughout the actively developed regions of the Arctic and sub-arctic for the convenience of aviators, prospectors, traders, fishermen and even native Eskimo and Indian trappers. Fuel oil is indispensable to mining operations, and the discovery several years ago of oil at a point fifty miles below Fort Norman on the Mackenzie River has greatly aided developments. Oil from this source is used at present to drive Diesel-powered units at various properties, and with further refining may be adapted to heating and cooking purposes in hospitals, schools, and police and trading posts, thus materially aiding the conservation of timber resources.

The oil wells near Fort Norman operate only during the summer months, about ninety days, and at present have a combined capacity of 350 barrels daily. In 1937 they produced 11,500 barrels of oil compared with 5,339 barrels in 1936 and 5,053 barrels in the 1935 season. During the summer months tanker barges move oil on regular schedule to the Eldorado mine on Great Bear Lake, and to Great Slave Lake to supply the Yellowknife Bay and Gordon Lake mining areas. Last year an 8½-mile pipe-line with storage tanks was constructed to overcome the bar to navigation at St. Charles rapids on Great Bear River, about 1,200 miles north of the international boundary.

No. 302. Fri. July 29, 1938 -- Elbow Room for Trout

The Department of Fisheries has been making an interesting experiment in New Brunswick, and has discovered that whatever may be the case with humans, environment is much more important than heredity when it comes to fish. The story may, perhaps, best be told by a racy report on the subject issued by the Department itself:-

"There are Speckled Trout in many New Brunswick streams, but in one of the less important brooks examined by the Department's fish culture people it was found that the stock showed stunted growth. They grew to maturity but under-nourishment was printed all over them. When 900 of them were captured by the fish culturists for experimental purposes they were found to average only five inches in length and only about an ounce in weight. It's no slander to call a trout of that size a "poor fish". In October, 1935, the 900 captives were transferred to the Department's hatchery at St. John. They didn't have to hustle for their own food there. The hatchery staff saw to it that they were given all the food they would eat, most of it liver, by the way.



"By the time a year had rolled around the fish had increased their weight to an average of 3.7 ounces and their length to slightly more than nine inches. A month later, in November, 1936, between six and seven hundred of them were marked for identification purposes by the removal of the right pectoral fin and they were then set free in two St. John County lakes-- Beaver and Ping-Pong. Last year a number of the marked fish were recaptured in the lakes. Some of them taken in Beaver Lake measured eleven inches. In Ping-Pong the average was a little more than that and the average weight was better than ten ounces. All of the recaptured fish showed the dash and spirit of the normal Speckled Trout. They rose readily to surface lures and the flesh was firm and well-flavoured.

"The introduced marked fish are taking on the characteristics of the fish native to each lake. This experiment seems to confirm the view that stunted and small Speckled Trout will assume normal size and growth when transferred to suitable environment with plenty of food".

"In other words, perhaps fish from over-stocked streams can be used to increase the trout population in waters where there aren't fish enough."

#### No. 303. Sat. July 30, 1938 --- Bees and Honey

It looks as if Canada is going to have a great increase in honey production this year. The manufacturers of beekeepers' supplies have been very busy. Their output in 1937 made an impressive gain.

Last year, it will be remembered, the production of honey was a disappointment. Although the number of colonies of bees had increased by 20,000 over the previous year, the crop at less than 22,000,000 pounds was the smallest since 1926 with the exception of 1932 when it dropped to 19,000,000 pounds. There had been heavy losses of bees during the winter and winter killing of clovers which are the main sources of nectar. To cap the climax, the unfavourable weather conditions during the summer months took a heavy toll over wide sections of the country, particularly in Ontario, Western Manitoba and the drought area of Saskatchewan. The record high was almost 30,000,000 pounds in 1931.

"Wonders will never cease" came readily to our lips when we read an amazing dispatch from Tokyo not long after the Japanese invasion of China had begun. We were told quite seriously by the Associated Press that a Nipponese scientist had discovered that bees could be used for communication purposes.

Dr. Nihon Matsu of Yamagata Hospital was said to have found that bees could be trained to carry messages at the speed of 30 miles an hour for a maximum distance of three miles. Because of their smallness bees would be more efficient than pigeons or dogs-- and more warlike.

Our own Department of Agriculture provides us with the interesting information that it requires approximately 40,000 bee-miles of flight to make one pound of honey. Bees carrying home a pay-load of .0001 pound of nectar must land on millions of flowers before they have enough to make one pound of honey.

Ten years' experimental work at the Brandon Farm shows that it is much more profitable to carry colonies over the winter than to kill the colonies in the fall and bring in package bees in the spring.

No. 304. Sun. July 31, 1938 -- What War Does

The story of the past twelve months is the story of war and rumours of war, with world peace threatened. Some countries are throttling or endeavouring to throttle neighbour states while others are girding on their armour for an expected conflict.

What happens to peaceful commerce when a country is invaded is a lesson which the annual trade figures, just completed, convey. We are all affected. War-torn Spain has always been a good customer of Canada; in late years a great many Canadian automobiles have been sold there. Three years ago these alone accounted for over  $2\frac{1}{2}$  million dollars. Our total exports of all commodities have now sunk to \$22,000 in one twelve-month period.

China has been invaded by powerful armies and our trade, imports and exports combined, has declined by  $4\frac{1}{2}$  million dollars since a year ago.

We are still getting a little coffee from Ethiopia-- not very much of it-- not, indeed, so much as we were getting formerly-- only about four thousand dollars' worth. Some people prefer the flavour of Abyssinian coffee to any other. It grows wild in the new Italian colony. Our exports to that country are practically nil.

Turning to a more pleasant subject, you will recall that recently the Irish Free State, or Eire as we shall have to learn to call it, and the United Kingdom have buried the hatchet. Their trade war is ended and in the new agreement Canada is on the same ground floor. Our exports to Eire have been increasing at a fast rate recently and during the past fiscal year have jumped from three million odd to five million odd.

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Canada Statistics

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DEPARTMENT OF  
TRADE AND COMMERCE



CANADA

**A FACT A DAY ABOUT CANADA**

**FROM THE**

**DOMINION BUREAU OF STATISTICS**

**AUGUST 1938**

**FOURTH SERIES**



Published by Authority of the HON. W.D. EULER, M.P.,  
Minister of Trade and Commerce.

Price 25 cents per annum



### Contents

- |      |                              |      |                              |
|------|------------------------------|------|------------------------------|
| 305. | Beausoleil.                  | 321. | Treated Fence Posts.         |
| 306. | Green Gables.                | 322. | Ski-ing in the Rockies.      |
| 307. | Much Gypsum.                 | 323. | More Fish Protection.        |
| 308. | Syllabarium.                 | 324. | Prairie Province Fisheries.  |
| 309. | Century-old Fish.            | 325. | Forest Fire Research.        |
| 310. | Turner Valley Oil.           | 326. | Gold Mining in Quebec.       |
| 311. | Youth Hostels.               | 327. | A Fishway.                   |
| 312. | Transportation to the Mines. | 328. | Co-operative Organizations.  |
| 313. | Aeroplanes in the North.     | 329. | Sea Lions.                   |
| 314. | Phalaropes.                  | 330. | Fish in the Movies.          |
| 315. | Surplus Buffalo.             | 331. | Fall Ploughing.              |
| 316. | The Famous Bluenose.         | 332. | Wild Life in National Parks. |
| 317. | Doing Away with the Warp.    | 333. | Tagging Cod.                 |
| 318. | Trail Riders.                | 334. | From Hunter to Farmer.       |
| 319. | Shanty Days.                 | 335. | Many Birds Winter in Canada. |
| 320. | Community Pastures.          |      |                              |

A Fact a Day about Canada

from the

Dominion Bureau of Statistics

No. 305. Mon. Aug. 1, 1938 -- Beausoleil

During these hot summer days one can get away for a moment from the grind of getting out statistical information to tell a story. It is a beautiful story concerning Beausoleil Island in the Georgian Bay, a rare place that only a comparatively few have visited in person but many of us have seen only in our dreams. It is the largest of the Georgian Bay Islands National Park and is about 2,700 acres in extent, more than four square miles.

In connection with Beausoleil Island and the region as a whole there are many interesting legends, one of which concerns an Indian Windigo or medicine man by the name of Kitchikewana who as a result of internal strife in the tribe left the Algonquins and wandered south to Georgian Bay where he associated himself with the Beaver Indians. This tribe was in great distress owing to lack of food and taking pity on them Kitchikewana decided to make suitable waterways from which they might procure an adequate supply of fish. With his great strength he scooped out the Great Lakes system. While in the process of excavating Lake Huron and Georgian Bay, huge boulders which impeded his work were tossed by him toward the mainland. Some of these boulders falling short splashed into the water, thus creating the famous Thousand Islands.

During his labours in the construction of this great waterway Kitchikewana is supposed to have made Beausoleil island in order that he might have a place to rest, and the imaginative visitor may see depressions where his shoulder blades and hips rested while he lay down to sleep. Legend further relates that when Kitchikewana fell ill and later died, the Indians not knowing how to bury such a huge body towed it to another island close by, where they heaped dirt up over it instead of digging a grave. This is supposed to account for the curious elevation of land some 150 feet high near Beausoleil Island, which is known as the Giant's Tomb.

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No. 306. Tues. Aug. 2, 1938 -- Green Gables

Yesterday we had a day-dream holiday to the Georgian Bay; today let us travel to Prince Edward Island where Scots abound and prohibition is the order. We learn that next year visitors to Prince Edward Island National Park will be afforded an opportunity to enjoy the royal and ancient game in one of the most attractive and romantic settings to be found in North America. Work on the new eighteen-hole golf links at Green Gables is just starting, and it is expected that at least nine holes will be ready for play by next summer.

Skirting the sand dunes of the Cavendish region along the gulf of St. Lawrence and stretching back into the beautiful pastoral landscape of the Island, the links at Green Gables will present a delightful combination of seaside and inland course resembling some of the original links of Scotland. All the artifices of modern golf architecture are being employed by the designer, Stanley Thompson, internationally known golf architect, who is weaving into the layout of the links many of the points of interest portrayed in "Anne of Green Gables," and associate novels by L. M. Montgomery.



The route of play, the location of tees, and the selection of greens have been carefully arranged to preserve the natural features associated with the popular stories. The farm house at Green Gables will be used as a lounge, tea room and caretaker's quarters, while the use of the barn, with slight alterations, as locker-rooms for players, wash rooms, and professional's shop and office, will help maintain the farmstead atmosphere. The surroundings are also being landscaped with the same note in evidence. Starting off on the first tee, located about a hundred yards to the east of the farm house, play leads north to the sand dunes from the Haunted Wood, circles the Lake of Shining Waters, and comes back inland behind the farm buildings, skirting Lovers' Lane, past the spring known as Dryad's Bubble, and then home to the eighteenth green, situated about a hundred feet southeast of the farm house.

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No. 307. Wed. Aug. 3, 1938 -- Much Gypsum

The production of gypsum during the first half of 1938 was 331,000 tons, which reflects activity in the construction industry.

The gypsum industry in Canada dates back to 1770 when gypsum was quarried in Nova Scotia and was considered a standard article of commerce. There are records of shipments to the United States a number of years before the Revolutionary War. The growing tendency in construction to make building as nearly fireproof as possible has greatly stimulated activity in the industry.

Special gypsum products such as gypsum laths, wall-board, roofing, slabs, blocks, hardwall plasters, and insulating and acoustic plasters, with their fire-resisting and insulating qualities, are finding increasing use in residential and office construction. In the field of sound-deadening products the market for acoustic plasters made from gypsum is being rapidly extended.

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No. 308. Thurs. Aug. 4, 1938 -- Syllabarium

Included in the varied cargo taken North aboard the R. M. S. Nascopie by this year's Eastern Arctic Patrol were 4,000 sets of the syllabarium to be distributed to the Eskimos at every port of call. These were the gift of R. P. Isbister, of Hamilton, Ontario, and were welcomed by the natives, who are being taught to read and write in the syllable characters.

The syllabarium was first brought to the Eskimos some twenty years ago by Rev. Dr. E. J. Peck, Anglican missionary, and developed by Roman Catholic and Anglican missionaries since, notably Bishop Arsene Turguétel, of the Roman Catholic diocese of Hudson Bay. Originally designed for the Cree Indians, the syllabarium makes use of some sixty phonetic characters, and it has been found simpler to form Eskimo words by the use of these characters than by the English alphabet which often makes their words cumbersome long.

The natives of the Eastern Arctic are rapidly learning to read and write the syllabarium and are now able to send notes to relatives, of which they are quite proud. It is also used by the Royal Canadian Mounted Police stationed in the North, and at almost every post in the Eastern Arctic notices in syllable characters about conserving game and other advice to the Eskimos occupy prominent positions.

No. 309. Fri. Aug. 5, 1938 -- Century-old Fish

Here is some more information about the great sturgeon that was captured this year in the Fraser River in British Columbia. Examination of the ear-rings of that 767-pound sturgeon proclaimed the fact that the big fish had seen a century come and go.

A fish with ear-rings? Of course. Not exterior adornments, to be sure, but concentric rings on the otolith or ear-bone or, as some put it, the ear-stone.

Counting otolith rings is the method of determining the age of some fish. In the case of the big Fraser sturgeon the rings were counted by an inspector on the British Columbia staff of the Dominion Department of Fisheries, among others, and he vouches for the statement that there were more than a hundred of them. Age, by the way, hadn't made this fish decrepit, not by a good deal; it put up a hard battle with every one of its 767 pounds when it found itself trapped in a fisherman's net.

Sturgeon are taken in both sea and freshwater fisheries of Canada but the larger catches are landed in inland waters of Quebec and Ontario. All of the catch -- it totalled 656,300 pounds in 1936 -- is marketed fresh.

Sometimes called "the royal fish," the sturgeon is perhaps best known to most people as the source of caviar, which is prepared from the roe of the fish. Canadian production of caviar is small, however, something like a couple of thousand pounds a year and nearly all of it is put up by Ontario fishermen.

Several different species of sturgeon occur in Canadian waters but all of them belong to the same family, one with a long scientific name, Acipenseridae. They're not very important commercially, taken by a few hundred thousand pounds a year as compared with catches of many millions of pounds in the case of some other fish, but their presence adds a bit more emphasis to the wonderful range of fish foods obtainable by Canadians from their fishing industry.

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No. 310. Sat. Aug. 6, 1938 -- Turner Valley Oil

The production of crude petroleum and natural gasoline in Canada during the six months ending June advanced 175 per cent from the output in the corresponding period of 1937; the totals were 2,919,425 barrels and 1,062,046 barrels, respectively. Increased production in the Turner Valley field, Alberta, was responsible for this sharp advance.

Drilling for oil and gas in Turner Valley dates back to 1913, but no developments of importance occurred until late in 1924, when gas with a content of one imperial gallon of naphtha per thousand cubic feet was obtained in a well drilled in the upper part of the limestone. Between then and 1936 more than 150 wells were drilled for naphtha, in a large percentage of which commercial yields were obtained. In June, 1936, a well drilled on the west flank, toward the southern end of the field, reached the top of the productive limestone horizon at a depth of 6,396 feet and obtained a crude oil yield of 850 barrels daily at a depth of 6,828 feet. The success of this well led to extensive drilling in this portion of the field with results as noted above.

Oil is now moving by tank car from Calgary to refineries in Moose Jaw and Regina, and as the available supply increases it will probably move still farther east to replace imported petroleum.



No. 311. Sun. Aug. 7, 1938 -- Youth Hostels

There are thousands and thousands of people in this Dominion who have hiked, but it has been mainly in the outlook for work. Somehow or other this is not a country of walkers or hikers for pleasure. We build highways for cars but leave the pedestrian out of account, and a walk along a country road is robbed of much of its pleasure in dodging automobiles.

Despite the handicaps, however, hikers and cyclists appear to be increasing in numbers --- so much so that the movement for youth hostels is on the way. New impetus is being given to hiking in Canada by a movement known as the Youth Hostels Association, already registered in a number of countries. The aim of youth hostels is everywhere the same--- to enable young people to enjoy hiking and cycling in the beautiful outdoors of Europe and North America; to enable youth to find wholesome companionship along the road, travelling inexpensively, and acquiring a knowledge of their neighbour's land and customs as well as their own. One of the codes of the hikers is that they pledge themselves to leave the countryside unmarred as a result of their travel in it.

The youth hostels idea began in Europe in 1911, as the practical dream of a German schoolmaster. Since its inception, youth in millions upon the open roads of Europe have advanced youth hostelling from a national to an international influence. In 1930 hostels were opened in England; in 1933 one opened in Canada, and in 1934 the movement spread to the United States. Today there are thousands of hostels in forty different countries with several millions of members. As youth hostels concern themselves not at all with the religious or political beliefs, or social positions of members, the movement more and more is lessening racial distinctions.

So far Canada has but a dozen or more hostels and a scant hundred members. The first youth hostel in Canada was opened in the foothills of Alberta, and a total of twelve now forms a chain from the E. P. Ranch to the town of Banff in Banff National Park. In 1937 Canada was the twentieth country to be admitted to the International Youth Hostels Association, and extensive organization work is now being carried on to extend the movement from the Maritimes to British Columbia.

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No. 312. Mon. Aug. 8, 1938 -- Transportation to the Mines

The Mines and Resources Department gives us the interesting information that the Government's scheme of assisting in improving transportation facilities into mining areas is being continued. An allocation of \$1,300,000 has been provided, to be spent mainly on the construction and improvement of roads into remote mining areas where transportation costs are so high as to retard development. Present arrangements, which are subject to revision, call for the expenditure by the Dominion Government during the current fiscal year of \$25,000 in Nova Scotia; \$250,000 in Quebec; \$250,000 in Ontario; \$225,000 in Manitoba; \$125,000 in Saskatchewan; \$50,000 in Alberta; \$240,000 in British Columbia; and a total of \$93,000 in Yukon and the Northwest Territories. Under the scheme, agreements are made with the Provinces concerned whereby the work is to be carried out under the direction of the Provincial Government, with the understanding that two-thirds of the total expenditure in each case will be contributed by the Dominion Government and one-third by the respective provinces. All projects are subject to the final approval of the Department of Mines and Resources, Ottawa, which also finances and carries out all work undertaken in the Yukon and Northwest Territories.

Initiated in the fiscal year 1936-37, the joint programme has been of material

aid in expanding the tonnage treated daily in gold and other metallurgical plants throughout Canada during the past two years. Upwards of one hundred producing or soon-to-be producing gold mines have been given improved road assistance essential to profitable operation, and active development has been encouraged in many promising mineral areas hitherto devoid of suitable transportation facilities.

No. 313. Tues. Aug. 9 1938 -- Aeroplanes in the North

Just as the covered wagon and pack train of pioneer days carried the tide of civilization westward on the North American continent, so the aeroplane of today is opening up a new mining frontier in the Canadian Northwest Territories. Long regarded only as a region of ice and snow, this vast expanse, which embraces more than one-third of all Canada, is now destined to play an important role in the economic life of the Dominion. Many areas once almost inaccessible are now within a few hours' flying time from large centres of population, and regions rich in minerals of economic importance -- radium, copper, nickel, gold, lead, zinc and silver -- await the prospector.

The year 1929 was the turning point in the affairs of the Northwest Territories, when mineral-exploration companies demonstrated that the aeroplane could be used to advantage in these northern latitudes. The range of the prospector's activities had previously been restricted mainly to lands in close proximity to rivers and lakes, and little was known of the country back from navigable waters. With the advent of aerial transportation the movement of the prospector became more widespread and the necessity arose for maps far more detailed than those then available.

Previous to 1929 the principal mineral developments in the Northwest Territories were the location and partial development of lead-zinc deposits near Pine Point, Great Slave Lake, and the discovery of oil at a point about fifty miles below Norman on the Mackenzie River, where there are now two producing wells. As a result of aerial explorations carried out in 1929 copper-sulphide deposits were discovered in the area between Great Bear Lake and the Coppermine River, and this was followed by the notable discovery of pitchblende-silver deposits, from which radium is obtained, at LaBine Point, on the eastern side of Great Bear Lake, in May, 1930.

In 1935 gold was discovered near the mouth of Yellowknife River and on Outpost Island, and also in the vicinity of Taltson River on the south shore of Great Slave Lake. In the fall of 1936 a gold strike was reported at Gordon Lake, fifty miles northeast of Yellowknife Bay, which seems likely to rank as one of the most important finds in recent years.

A nickel and cobalt-bearing mineral deposit has been located a few miles east of the point where the Francois River enters the eastern arm of Great Slave Lake, and a nickel deposit has also been discovered and staked on the north shore of Rankin Inlet on the west coast of Hudson Bay.

According to recent reports Canada's northern mineral front continues to be the scene of great activity, and aerial transportation companies are busily engaged in carrying freight, supplies, and men to remote areas.



No. 314. Wed. Aug. 10, 1938 -- Phalaropes

Phalaropes, which are among the most delightful of Canadian shore birds, have some unusual characteristics. First they differ from most other shore birds in being expert swimmers. Their tarsi, sometimes erroneously called the lower leg joints, are compressed; their toes are bordered with web-lobes; and these features coupled with the fact that the under plumage is heavy as in the gulls, and the under down is much like that of a duck, make the phalaropes very well adapted to life on the water.

The second unusual feature about phalaropes is their home life. The female phalarope takes the initiative in courting rites, and makes the first advance toward the shy and modestly coloured prospective mate. The females are larger, handsomer, and wear brighter plumage than the males. After Mrs. Phalarope lays her eggs, madam betakes herself to pursue her favourite pastimes, more than often to join other ladies of leisure of her own kind in small sociable flocks, while the obedient and faithful Mr. Phalarope incubates the eggs and shoulders practically all of the cares and worries of the household.

Three species of phalaropes occur in Canada, the Red, the Northern, and Wilson's Phalaropes. The first two mentioned nest in the Arctic and far northern regions, but may be looked for particularly on both coasts and on the prairies during migration. The Wilson's Phalarope is a more southern nesting species and, in Canada, breeds chiefly in the prairie regions, where it is one of the commonest inhabitants of the sloughs and marshes.

Phalaropes are in no way harmful, and while they are as a whole probably not of any very great economic importance they do consume insects. Phalaropes are protected at all times under the Migratory Birds Convention Act.

No. 315. Thurs. Aug. 11, 1938 -- Surplus Buffalo

Two thousand or so buffalo were slaughtered late last fall. They were the surplus of the great herds at Wainwright, Alberta and had to be disposed of because of the annual increase. More will be marketed this year.

As a result of the annual reductions to Canada's buffalo herds, high quality buffalo skins suitable for the manufacture of coats, motor robes, floor rugs, and other articles are again on the market at the lowest prices in fifty years. These skins may be purchased from leading furriers or in quantity lots from the National Parks Bureau, Department of Mines and Resources, Ottawa, Canada. Thanks to improved fur-dressing methods and the fact that these animals are slaughtered only when the fur is prime, the buffalo products of today are considered superior to those of years gone by when a pair of buffalo robes were believed necessary for a complete winter driving turnout. The careful dressing of the green hides has resulted in a skin that is very pliable and light in weight, and which, after tanning, may be tailored into excellent outdoor garments. Experiments in shearing the long hair from dressed skins have produced fur resembling plucked beaver in appearance.

Canada's success in saving the buffalo from extinction has been heralded as one of the outstanding achievements in the history of wild life conservation. Over sixty years ago the buffalo inhabited the western plains of Canada and the United States in countless thousands, but the advance of civilization and the improvidence of hunters brought about one of the greatest slaughters in wild life history, all

but wiping out of existence this most interesting species. In 1907 the Government of Canada purchased a herd of 716 pure-bred buffalo, of which 631 were placed in Buffalo National Park and the balance in Elk Island National Park. The growth of the herds was rapid and it soon became necessary to take various measures to reduce their numbers. During the four-year period 1925 to 1928 a total of 6,673 buffalo were shipped to Wood Buffalo Park near Fort Smith in the Northwest Territories to relieve crowding at Buffalo National Park. Periodic reductions have also been carried out from time to time by supervised slaughter.

No. 316. Fri. Aug. 12, 1938 --- The Famous Bluenose

Most Canadians when they think of the schooner Bluenose may think of a racer but the fact is that the ship is a working fisherman --- a typical Nova Scotia deep sea fishing vessel, making her regular trips to the "Banks" or offshore fishing grounds. Not long ago the Bluenose came back to her home port of Lunenburg after making a trip to the banks and in her hold were more than 2,000 quintals of fish ready to be processed for the dried fish trade.

It's in between fishing trips and not very often as it happens, that the Bluenose is a racer. Next October the schooner will meet a Massachusetts fishing vessel, the Gertrude L. Thebaud, which has challenged for the championship trophy that the Canadian boat has held for a number of years as the fastest fishing schooner of the North Atlantic. This will be the first race in some years.

Except that she has proven faster than others, the Bluenose is typical of Nova Scotia bank fishing vessels. They are all sturdy sailing vessels, capable of withstanding the stormiest kind of weather. They range in size from roughly seventy tons to more than 125. When they're fishing they carry crews numbering up to, say, twenty-five. For the most part they use the "long line" method of making their catches, which means that they do their fishing from two-man dories which are put overboard on the banks and from which "long" lines, each with five or six hundred short lines attached, are set. The catches consist, in the main, of cod, haddock, hake and pollock. At certain times of the year the "bankers" seek fares for use in the dried fish trade, at other seasons numbers of them go "fresh fishing," which is another way of saying that their landings are intended for use on the fresh fish markets.

No. 317. Sat. Aug. 13, 1938 --- Doing Away with the Warp

It is typical of the laborious effort which Canada is making to improve the quality of her products that many years of research and many millions of dollars have been devoted to problems connected with the lumber industry. From these quiet efforts there emerges from time to time a discovery of far-reaching importance. One particularly important line of research is aiming at the drying of timber. If the drying is not done carefully losses of 20 per cent or more in the value of lumber may result from warping and what is known as bowing. On the other hand, for commercial purposes it is not desirable to remove all the water, and precisely what degree of drying is required for various timbers for various purposes is a matter of close and patient investigation.

In the old days a year's operations in Canada would lose between \$5,000,000 and \$10,000,000 if seasonable conditions were not favourable. The Forest Products



Research Laboratory of the Department of Mines and Resources has therefore brought about many improvements in the design and operation of dry-kilns, in which temperature, humidity, ventilation and air circulation are accurately controlled, and their respective influences on warping duly noted.

A drying treatment must be worked out for each species as no two kinds of timber contain the same amount of moisture. For example, a thousand feet of Canadian yellow birch when freshly sawn weighs about 4,700 pounds, of which about 2,000 pounds is water. When this wood is dried for use such as furniture, the 2,000 pounds of water is reduced to about 190 pounds. Some species contain even higher proportions of water and some, much lower proportions. Douglas fir, a particularly dry wood in the standing tree, contains only about 900 pounds of water per thousand feet.

No. 318. Sun. Aug. 14, 1938 -- Trail Riders

Here is a story of the Trail Riders. For the past fourteen years the Trail Riders of the Canadian Rockies have held an annual outing in Canada's mountain parks. Reflecting the glamour and colour of the Canadian West, this widely-known organization of horsemen and nature-lovers is co-operating with officials of the National Parks of Canada in making known the trails through forest and above timberline, through alpine meadows and rocky canyons, over sleepy passes, where no automobile can enter. The annual trail ride for 1938 was held from July 29 to August 2, and the route was in a section of Banff National Park containing Devil's Gap, the Ghost River and Aylmer Pass. The old Indian trail through Devil's Gap was much traversed in the days of the fur traders, but is now not so well known. The five-day ride was through some of the most scenic parts of the mountain country, passing through range after range of mountains capped with snow and intersected by deep chasms or wooded valleys, and clear mountain lakes.

The annual jaunt of the Trail Riders is always carried out with a definite itinerary and the riders travel with a pack-horse outfit, carrying tents and cooking equipment. Camp is set up each night and meals are served around a roaring campfire. Members come from all parts of Canada, the United States and Europe to "ride trail" and enjoy to the full the beauty and grandeur of this mountain area. Mileage is counted to qualify for buttons and insignia, and bulletins with maps are issued for the guidance and instruction of those who wish to follow this sport.

More than 2,500 miles of standard trails in the National Parks of the Canadian Rockies beckon to lovers of outdoors who wish to get off the beaten track, and many visitors avail themselves of the facilities provided for independent trips either on horseback or on foot over well-marked routes.

No. 319. Mon. Aug. 15, 1938 -- Shanty Days

Logging in Canada, except on the coast of British Columbia, is mostly a winter operation, and each autumn, when activities slacken up in other lines such as agriculture, building, road and railway construction and maintenance, witnesses a large exodus of workers to shanty-land. Logging provides employment for about 240,000 workers on a part-time basis, or for an average of about 84,000 men yearly.

Logging operations are generally conducted in unsettled or sparsely settled

country at considerable distances from the ordinary routes of travel. In the typical logging camp in eastern Canada there are usually from thirty to seventy-five men. The buildings are of a temporary nature, built of logs or rough boards, and usually include a cookhouse, sleep camp, stable, storehouse, and blacksmith's shop. The built-in bunks filled with boughs or hay are now being replaced by iron double-deck bunks with springs, mattresses and blankets. The houses are heated with large wood-burning stoves, and though the regulations call for provision for ventilation, the lumber-jacks are not very fussy about this item, evidently being satisfied with the fresh air they get during the day. But they do want heat, and since fuel is cheap and abundant, they get it.

The food is generally excellent and varied, including fresh meat, salt and smoked pork, potatoes and fresh vegetables, canned and dried fruit, eggs, beans, and a great variety of pies and cakes. The quantity is limited only by a man's capacity to take it, and hard work in the cold fresh air produces remarkable powers in this line.

In British Columbia many of the camps consist of cabins which can be moved on railway cars. They hold only four to six men each, and are furnished with single beds, blankets, sheets and pillows, and tables and chairs. Hot and cold water showers are often provided and the meals are a revelation to the visitor. The men pay for their board and lodging and so can have what they are prepared collectively to pay for. In the East the men are paid for the most part by the month, with board provided. As log transportation in British Columbia does not depend on the presence of snow, the camps operate throughout the year, usually about two hundred days.

Life in the logging camps, though not luxurious, is wholesome and far from unpleasant. The work is hard but healthful, and the men usually come out of the woods in the spring in better condition than when they went to the shanty in the fall.

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No. 320. Tues. Aug. 16, 1938 -- Community Pastures

Development of community pastures is one of the many comprehensive schemes included in the programme of rehabilitation under the Prairie Farm Rehabilitation Act. The development of community pastures in Saskatchewan may be taken as typical of all phases of rehabilitation and is in itself a programme of substantial proportions and possibilities. For example, the 1938 programme includes a list of more than twenty pastures running approximately into 945,070 acres. The tremendous amount of work entailed in a project of this magnitude can best be visualized when it is realized that within every pasture area it becomes necessary to move or rehabilitate anywhere from ten to twenty families, and they have to be assisted in moving and in other ways to become re-established. Just to mention a detail, fencing operations will cover 1,266 miles, but before that work can be commenced, land control must be secured, possible watering places developed, and a careful survey made of the fence lines.

The development of community pastures has followed well laid and executed plans, and in the spring of 1938 a scientific grass survey of the sixteen community pastures (175,000 acres) established in 1937 in Saskatchewan under the P. F. R. A. programme was made to determine the carrying capacity of each pasture. The pastures went into operation in the spring of this year (1938) and have produced a grass covering which will make it possible for them to hold the snow during the coming winter and give good protection to the grass in the spring of 1939. Through proper control in these pastures, over-grazing and the subsequent ruination of grass lands, will, it is hoped, be a thing of the past.



Further benefits from the survey are that areas where soil drifting was most serious before the inauguration of the rehabilitation scheme have now good grass coverage. These drifting or "go-back" weed infested lands were reseeded with crested wheat grass, sweet clover, and brome. All the pastures have made a wonderful growth of grass.

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No. 321. Wed. Aug. 17, 1938 -- Treated Fence Posts

In the 1938 development of 945,070 acres of community pastures in Saskatchewan under the Prairie Farm Rehabilitation Act programme, 1,266 miles of fencing were required for the huge undertaking.

An interesting feature is the use of bluestone-treated poplar posts, as exemplified by the Dominion Experimental Station at Manyberries in their experiments over the past twelve years. During that time the bluestone treatment has proved very satisfactory in preventing decay. In March 80,000 posts were ordered from the northern areas and after delivery at the shipping point were treated in May and June under an experienced inspector with copper sulphate (bluestone).

The method of treatment consisted of peeling the butts of the posts three to four feet and one strip of bark completely up the post. The post is then placed in an upright position on its butt in a wooden tank which contained about twelve inches of a saturation solution of copper sulphate. The posts absorb from one to two quarts of the solution, the colour of the bluestone showing at the top when the treatment is complete. The posts are then set aside to dry and can either be completely peeled or left to the weather. The posts last longer if peeled immediately after treatment. The time necessary to complete the treatment depends upon the weather. On hot days the solution will follow the sap to the top in six or seven hours. On dark cool days it may take twelve hours longer.

The sizes of the poplar posts used in the community pastures are 5-inch top, 7 feet long; corner-posts 8-inch top, 8 feet long. Standard community pastures have barbed wire strands with posts one rod apart. Reserve areas and irrigation canals are fenced with three to four strands of barbed wire with posts also one rod apart.

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No. 322. Thurs. Aug. 18, 1938 -- Ski-ing in the Rockies

Most people take their vacations in the summer months, but the numbers of those who holiday in winter are increasing. These warm days, therefore, they are planning what they will do, what winter playground they will visit.

Hundreds of skiers, both young and old, now flock into the mountains for the joyous pastime, and reports from the Banff National Park show that it is a favourite resort when winter comes.

Mount Norquay is the haven of local skiers, and on week-ends it is also visited by hosts of gay excursionists from other points. A spectacular ski jump, fine down-hill ski runs and a slalom course have been built on the glistening slopes of Mount Norquay within sight of the town of Banff, which forms the outfitting centre and starting point for many of the popular routes now open to skiers. The down-hill run,

starting 7,500 feet up the mountain, drops 3,000 feet in a travelled distance of a mile and a half, while the slalom course has an angle of from thirty to forty degrees.

Three developed, high-country ski areas in Banff National Park boast establishments that for want of a better name are called camps. All the cabins are constructed of logs, and range in size from small private shacks to beautiful main lodges, one of which has a lounge fifty-six by twenty-five feet --- cheered by the burning logs which crackle in an enormous stone fireplace. Electric lights, modern plumbing and leather chesterfields are luxuries that one is surprised to find in these camps, which are accessible only by pack horse in summer and ski in winter. These camps are located at Mount Assiniboine, about thirty miles south of Banff; in the Sunshine Valley, fifteen miles southwest of Banff; and in the Skoki Valley, ten miles north of Lake Louise.

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No. 323. Fri. Aug. 19, 1938 --- More Fish Protection

Albertans may like to have their automobiles looking spick and span but if they get the cars dirty on a fishing trip, or any other kind of a trip for that matter, they mustn't wash them in any provincial stream where fish are dwelling. If they do, they may be unwilling later listeners as a magistrate says "So many dollars and costs," for one of the sections recently added to the fisheries regulations effective in Alberta provides that "the washing of any motor vehicle in any stream of the province frequented by fish is prohibited."

The new regulation is intended to supply an additional safeguard against higher rates of fish mortality. Grease and oil and grime washed off a car that has been travelling here, there and perhaps everywhere about the country aren't good for fish. On the contrary, they may cut fish life short.

Other provisos against the pollution of waters frequented by fish have applied everywhere in Canada for years past, and are still in effect, but the new Alberta regulation is the first one to have specific reference to pollution from dirty automobiles. All the anti-pollution laws or regulations, of course, spring from the fact that Canada's fisheries resources are so valuable either from the dollars-and-cents or recreational point of view that it is essential in the general public interest that adequate steps be taken to conserve them.

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No. 324. Sat. Aug. 20, 1938 --- Prairie Province Fisheries.

Fisheries production value increased in all three Prairie Provinces last year. Combined production in the three amounted in value to \$2,756,000, roundly stated, or about \$412,000 more than in 1936.

By provinces, the 1937 totals, with odd figures dropped, were as follows: Manitoba, \$1,796,000, a gain of \$128,600; Saskatchewan, \$527,200, a gain of over \$160,000; and Alberta, \$433,350, or nearly \$123,500 more than in the preceding year. As the totals indicate, Manitoba is the biggest producer.

In each province, too, more men were at work in the fisheries than in 1936. All told, there were 7,603 of them --- an increase of about 1,400 and, relatively, that was a big jump. The landed value of the catches to the fishermen totalled close to \$1,924,000.



In Manitoba the pickerel is more valuable than any other single species of fish, rated according to the amount of money obtained for the catch. In Saskatchewan and Alberta, however, the whitefish is well ahead of all the rest. Other species of importance in the prairie fisheries include trout, tullibee, saugers, and pike.

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No. 325. Sun. Aug. 21, 1938 -- Forest Fire Research

In a country with forest and climatic conditions like Canada the problem of how to reduce losses from forest fires is ever in the foreground. Statistics collected by the Forest Service of the Department of Mines and Resources reveal that the total area burned over in 1936 exceeded three million acres, representing a direct loss in timber and property values of over \$6,080,000 and a cost in actual fire fighting of more than \$1,200,000 without making any allowance for loss in soil fertility, loss in scenic value and through floods, soil erosion, and the lowering of water levels in streams, all of which are the inevitable results of extreme forest denudation.

Forest protection authorities have long recognized the need of a unit for measuring cumulative forest-fire hazard, which varies with the weather and forest types. There are many things which the forest officer can plan better and more economically if he knows the degree of fire hazard which exists each day in his territory and can predict the probable conditions for the next day.

As a result of research work at the Forest Experiment Stations of the Dominion Forest Service a method has been developed for computing an index of fire hazard from daily records of rainfall, evaporation, wind, and relative humidity. The index is computed from tables which must be prepared for each forest type and climatic area by methods developed by the technical officers engaged on this research work.

This method of computing the daily index of fire hazard and forecasting the hazard for the next day is now in wide use in the provinces of Quebec and New Brunswick where it is known as the Wright System, named after the inventor. Some sixty forest weather stations use the system for the following purposes: In detailing the work of forest employees so they will be available for fire duty if the fire hazard warrants; in determining the number of men to send to a fire; to regulate the issuance or cancellation of burning permits issued to settlers and others, so that the burning may be confined to safe periods; to regulate and control travel in and use of the forest by the public; to regulate the frequency of forest patrols and to know when it is safe to allow lookout tower men off duty. In the past, decisions on most of the above points have had to depend on individual judgment, and in some cases needless expense has occurred owing to faulty estimates of the degree of hazard which existed. Now all these points may be safely settled on a scientific basis.

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No. 326. Mon. Aug. 22, 1938 -- Gold Mining in Quebec

Gold mining in Quebec has made notable progress in the past decade, the production of the metal having increased in value from \$172,217 in 1927 to \$24,365,321 in 1937. Quebec is now Canada's second largest gold producer with practically the entire output coming from the mines in the northwest section of the province. The copper-gold ores of the Noranda mine have been the chief source of Quebec's gold

output but production from the lode gold properties has been steadily increasing, and whereas in 1933 they contributed only twenty per cent of the province's output they are now contributing about fifty per cent.

Among the regions reporting outstanding developments is the Dubuisson-Bourlamaque area which is rapidly becoming one of the leading gold-producing camps in the Dominion. Gold production was commenced early in 1929, and since then it has increased from an annual rate of \$307,000 to the present rate of approximately \$9,500,000 with expectations of a further increase in 1938. This area adjoins the Cadillac-Malartic area on the east, and forms part of the gold belt which extends from the Ontario boundary eastwards a known distance of about 120 miles. In addition to the Siscoe mine, the first and for several years the only gold producer in the area, there are now four other properties -- Lamaque, Sigma, Sullivan Consolidated, and Shawkey -- contributing to the output.

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No. 327. Tues. Aug. 23, 1938 -- A Fishway

A fishway, or "ladder" has been built this year in Ingram Creek, B. C. By overcoming 18-foot falls in Ingram Creek, which drains from the Ingram Lake system at the head of Ellerslie Channel, this particular fishway will open up some six and a half miles of good spawning grounds which salmon coming up the stream have hitherto been unable to reach. That should mean increasing runs of fish to Ellerslie Channel as future seasons go by and successive generations of salmon come to maturity and ascend the creek to spawn. Below the falls there are only some thirty yards of spawning grounds, but if the grounds in the lake's system above are opened up successfully by the fishway the Ingram Lake spawning area will be larger, with one exception, than any other in the Bella Bella district.

The falls concerned make their abrupt drop of eighteen feet in a distance of only forty-five feet of stream and although all varieties of salmon come up the creek none of them, so far as can be ascertained by the local fisheries officer, have ever succeeded in getting beyond the obstruction. Numbers of them try to ascend the falls, of course, but they are thrown back by the force of the water, badly bruised and battered. Salmon are game and vigorous fish, but there's mighty power in water which comes tumbling eighteen feet down a comparatively narrow ledge between steep rock-side hills.

Up to the present season the salmon fishing in Ellerslie Channel has not been on a very large scale, since the size of the runs did not warrant greater fishing effort, but development of the runs as a result of the fishway's construction will enable the fishermen to expand their operations.

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No. 328. Wed. Aug. 24, 1938 -- Co-operative Organizations

Co-operative organizations have gained an important place in the field of Canadian business. The activities of the larger organizations, such as the wheat pools, the livestock, and the fruit co-operatives, have reached a high state of development and have received world wide recognition. In addition to these, there are hundreds of comparatively small organizations which are working quietly and effectively in serving local areas. Compared with Canada's fifteen leading manufacturing industries, which include the pulp and paper industry, central electric stations, automobiles, and petroleum products, the farmers' business organizations rank first in number of



establishments, fourth in capital invested, and third in gross sales value of products.

During 1937, there were 1,024 co-operative organizations in Canada, with 2,963 branches, which combined make a total of 3,987 places of business engaged in the marketing of farm products and the purchase of supplies for farmers. Shareholders and members financially interested number 396,918, and patrons were estimated to number 451,231. Total assets, after deducting provision for bad debts and depreciation amounted to \$87,938,453, of which the book value of plant and equipment was \$36,338,952.

The members' equity amounted to \$51,252,828 consisting of paid-up share capital \$9,265,747 and reserves and surplus \$41,987,081. This was an increase of \$166,137 in net worth over 1935. Current assets amounted to \$29,990,700, compared with current liabilities of \$10,293,661, or in other words the co-operatives as a whole had \$2.91 of assets which could be readily turned into cash covering each dollar of current debt. From 1935 to 1936, total working capital increased from \$17,541,304 to \$19,697,039. The favourable relation of net worth to total assets was maintained at 58 per cent. These tests indicate a sound financial structure both from a current and a long-time point of view.

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No. 329. Thurs. Aug. 25, 1938 -- Sea Lions

Sea lions do considerable harm to fisheries and damage to fishing equipment on the Pacific coast and the Dominion Department of Fisheries is setting out to determine whether the herds are increasing in size or diminishing. Inspectors on the federal fisheries staff in British Columbia are counting sea lion noses at the rookeries and the "hauling-out places" where the animals congregate in numbers. On some parts of the coast where the rookeries are not readily accessible to the inspectors the census taking will be done by captains of the department's fisheries protection steamers.

Sea lions are big and powerful. More than that, they have greedy stomachs and they like to fill them. Wise creatures, too, they know that fish are good food and when runs of salmon, for instance, come along the lions prey eagerly upon them, with consequent loss to the fishermen's catches. Nor is destruction of fish the only quarrel the fishermen have with the marauders. When a salmon run moves nearby the lions do not bother going around any nets that may be between them and their next meal. They smash their way straight for the salmon, ripping through any nets that chance to be in their course. Thus, then, they cause the fishermen twofold loss -- loss of fish to catch with their gear and loss of gear with which to catch fish.

In order to give the fishing industry some protection against the sea lions' ravages the Department of Fisheries, for some years past, has been conducting annual hunts at several of the larger rookeries which lie at points where important salmon runs pass by and where the herds have been especially destructive. The hunts are carried on by men from departmental steamers. Their purpose, of course, is to exercise control of the size of the herds, which otherwise might work too great havoc.

No. 330. Fri. Aug. 26, 1938 -- Fish in the Movies

"Food for Thought", a sound motion picture illustrative of the Canadian fishing industry and indicative of the merits of Canadian fish foods, was seen and heard by more than 57,000 people in a travelling theatre in Western Canada between July, 1937 and July, 1938. Of course, it was seen, too, by a great many more than 57,000 people in other parts of the Dominion during the same period, as it was shown in something like 400 motion picture houses in the various provinces. The travelling theatre, however --- a transformed railway car --- brought the picture and its story to scattered rural communities in the west who otherwise could not have been reached effectively. The English edition of the picture was shown to 291 audiences in the car and the French edition to 54 more. It gave them all a new realization of the national importance of the fishing industry, and made the value of fish food much better known.

The picture was prepared by a Canadian motion picture company for the Dominion Department of Fisheries, which is using it to increase popular interest in the fisheries and thus to help the fishermen and fish dealers. It was shown in the theatre car under arrangements made by the department with the Canadian Forestry Association, which operates the car for educational purposes. Not only was the picture shown, but the officials in the car distributed departmental cookery booklets to women in the audiences and pamphlets relative to the Dominion's fisheries resources and fishing industry were distributed to school pupils and teachers.

No. 331. Sat. Aug. 27, 1938 -- Fall Ploughing

A good grain crop is one of the best forms of farm insurance and may well determine the difference between success and failure in our farming operations. One factor that has a direct bearing on the yield secured is the time of seeding. In normal years, the earlier the crop can be seeded, the better chance there is for a satisfactory yield. To seed early, the land must be partially prepared the previous fall, particularly sod land.

Experiments have been conducted at the Dominion Experimental Farm at Nappan, N.S. during the past fifteen years comparing various methods of soil preparation for the grain crop, states S. A. Hilton, Assistant to the Superintendent.

Comparisons are made of oat yields following sod land ploughed at different times. August ploughing, followed by top-working, has given an average yield per acre of 49.6 bushels. The same treatment followed by ribbing late in the autumn has averaged 52.9 bushels; ploughing in September and top-working, 51.9 bushels; October ploughing with top-working, 50 bushels and without top-working, 50.5 bushels; ploughing shallow in August, top-working and reploughing late in autumn averaged 51.6 bushels; and ploughing in the spring, (no autumn treatment), averaged 48 bushels.

The results indicate that on medium clay loam soil, fall ploughing is preferable to spring ploughing. Top-working of fall ploughed land does not appear to be an economical practice, except for weed control. Early ploughing and frequent top-working aids in the control of perennial weeds such as sow thistle and couch grass and also annual weeds, as mustard, wild radish, hemp, nettles, etc.



No. 332. Sun. Aug. 28, 1938 -- Wild Life in National Parks

Substantial increases in wild animal life in the National Parks of Canada are reported. Observations indicated gains in wapiti or elk, and moose, which were more abundant in Banff and Jasper National Parks in Alberta and Yoho National Park in British Columbia. Rocky Mountain sheep, the picturesque "bighorn" of Canada's western mountains also were more numerous in Banff Park, particularly in the vicinity of the Town of Banff. Increases in deer, elk and bear were reported in Waterton Lakes National Park, Alberta; Prince Albert National Park, Saskatchewan; and Riding Mountain National Park, Manitoba.

To conserve and perpetuate species native to the plains region of Western Canada, the Dominion Government some years ago set aside four wild animal parks in Alberta, three of which have been fenced. These areas include Buffalo and Elk Island National Parks, which contain large herds of buffalo as well as numbers of deer, elk and moose, and Nemiskam and Wawaskey National Parks which provide sanctuaries for pronghorned antelope. Increases in these species, particularly among the buffalo and pronghorned antelope, were registered during the year.

Small exhibition herds of wild animals are also maintained as tourist attractions in enclosures at Banff, Alberta, and in Riding Mountain Park, Manitoba. During the past year these exhibition herds were extended to Prince Albert National Park, Saskatchewan, where five buffalo from Elk Island were placed in a fenced area which is accessible to visitors from the main Park highway.

While a census of game animals in the larger scenic and recreational parks of Canada is not practicable owing to the extensive area over which they may roam, an estimate of species enclosed in the wild animal parks on March 31, 1937, disclosed a total of 375 antelope; 6,616 buffalo; 3,618 elk; 900 moose and 1,507 deer, in addition to a number of mammals such as four-horned sheep, Rocky Mountain sheep and goat, white-tailed deer and elk.

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No. 333. Mon. Aug. 29, 1938 -- Tagging Cod

Captured in the Sable Island Bank area off Nova Scotia on May 30, 1937, a cod was tagged by a Canadian fisheries research worker and then set free, unharmed, to follow its own devices again. It kept away from trouble for a little more than a year. Then it made a mistake. On June 20, 1938, it grabbed at an enticing bit of food off Gabarouse, Cape Breton. That ended its earthly, or watery, career. The bit of food concealed a fisherman's hook. The cod went to market.

The fisherman returned the identification tag to the federal Fisheries Research Board. A glance at the number on the tag and another glance at tagging records told the investigator concerned when and where the fish had first been caught and tagged and freed. It had ended up at Gabarouse, and taken a little over a year to get there.

The movement of a single fish wouldn't tell anybody very much, of course, about the migratory habits of cod. The case is different, however, if a large number of cod are tagged and substantial numbers of them recaptured later on. In that case an analysis of the tagging records may reveal what travel course the fish, as a group, usually follow. If that is found out it will be possible for fishermen to know where catches are most likely to be made.

That, in brief, is why the fisheries scientists in the federal service have been tagging large numbers of codfish off Nova Scotia in the past few years. It's a step taken with a view to obtaining information that can be passed on to the fishermen to their practical advantage.

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No. 334. Tues. Aug. 30, 1938 -- From Hunter to Farmer

Progress in Indian rural rehabilitation in Canada is indicated in a recent report on crops and livestock on Indian Reserves for the period 1934 to 1937. The total area under field crops on the reserves in 1937 is reported as 229,718 acres, compared with 222,291 acres in 1936; 213,938 acres in 1935, and 209,261 acres in 1934. Holdings of farm livestock for 1937 are reported as: horses 27,104, milch cows 7,307, other cattle 42,986, sheep 2,090, hogs 5,612, hens and chickens 92,456, turkeys 6,668, geese 2,001, and ducks 4,039.

Originally the Indians subsisted in moderate comfort upon the harvest that nature provided, mainly without human aid, but with the advance of settlement and the depletion of game resources that followed in its wake, the Indians in settled areas were faced with the necessity of turning to other means and methods to support themselves. Progress is being made in the transformation of the Indian from hunter to farmer though necessarily slow, as such a change in the life and habits of a people can only be brought about by patient, sympathetic and consistent effort and instruction. Education and the response of the Indians to the efforts to advance them to a position of independence and self-support have been major factors in the success of the work.

Indians in Canada are the wards of the Department of Mines and Resources, which, through the Indian Affairs Branch, has control of Indian education, health, the development of agriculture and other pursuits among them, the administration of their funds and legal transactions, and the general supervision of their welfare.

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No. 335. Wed. Aug. 31, 1938 -- Many Birds Winter in Canada

Contrary to the popular belief that a general exodus of Canadian bird life takes place in the fall, many birds remain in this country even in mid-winter, as is shown by the annual surveys held in Christmas week by observers in various parts of the Dominion. The greatest variety for any area was found about Toronto, where the survey parties discovered no fewer than 9,234 birds, of 58 different kinds, on December 26th last. These included seven kinds of wild ducks, six kinds of hawks, a snipe, four kinds of gulls, five kinds of owls, four kinds of woodpeckers, two robins, two meadowlarks, eight cardinals, and twenty-five song sparrows. Hamilton, Ontario, with 9,511 birds, of 57 different kinds, was in second place for variety. Especially interesting birds noted near this city were a winter wren and brown thrasher. Both Toronto and Hamilton have the advantage of a comparatively southern position and of having large areas of open water near them so that their winter bird population includes large numbers of both water birds and land birds.

An unusually large wintering population of northern finches, in addition to the usual chickadees, nuthatches, and woodpeckers was reported from many points in Eastern Canada. An unusual invasion of cultivated areas in central Alberta by



Canada jays and a large number of waterfowl and shore birds in the mild region of southwestern British Columbia were the outstanding items in the reports from Western Canada.

These surveys were taken at a time when the birds were stationary -- the southward movement was over and the northward flight was not yet under way. Some of the birds noted in Toronto and Hamilton, such as the snipe, robins, meadowlarks, wren, and brown thrasher, normally winter farther south, and those seen in Canada during Christmas week may be regarded as stragglers left behind. A winter population of ducks, hawks, gulls, owls, woodpeckers, cardinals, and song sparrows, on the contrary may be regarded as normal along the shores of the more southern Great Lakes.

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DEPARTMENT OF  
TRADE AND COMMERCE



**A FACT A DAY ABOUT CANADA**

FROM THE

**DOMINION BUREAU OF STATISTICS**

**SEPTEMBER 1938**

**FOURTH SERIES**



Published by Authority of the HON. W.D. EULER, M.P.,  
Minister of Trade and Commerce.

Price 25 cents per annum



### Contents

- |  |                                       |
|--|---------------------------------------|
| 336. Charcoal from Wood Waste.                 | 352. Canada Leads in Platinum Metals. |
| 337. Successful Indian Ranchers.               | 353. Yellowknife.                     |
| 338. Occupations in Relation to School Life.   | 354. New Indian Schools Built.        |
| 339. Tea a Popular Beverage.                   | 355. Tobacco Growing Industry.        |
| 340. Canada's Apple Industry.                  | 356. Historic Sites Marked.           |
| 341. The Fur Industry.                         | 357. Films of National Parks Popular. |
| 342. Canned Food Production.                   | 358. Uranium.                         |
| 343. Wool, The Necessary Fibre.                | 359. More About Wool.                 |
| 344. Silk, The Queen of Fibres.                | 360. Canadian Films.                  |
| 345. Cotton, The Universal Fibre.              | 361. Canadian Sardine Industry.       |
| 346. Rayon, The Scientific Fibre.              | 362. Cake of Another Age.             |
| 347. Louisbourg Fortress Historical Museum.    | 363. The Manx Tongue.                 |
| 348. The King's Privy Council.                 | 364. A Greenland Tragedy.             |
| 349. Aviation Gains in Canada.                 | 365. Maple Syrup Harvest.             |
| 350. Facts About Cuba.                         | Index for Series Four.                |
| 351. Canadian Silk Stockings for Foreign Legs. |                                       |

James Muir,  
Editor.

A Fact a Day about Canada

from the

Dominion Bureau of Statistics

No. 336. Thurs. Sept. 1, 1938 -- Charcoal from Wood Waste

The manufacture of charcoal from wood waste would help to solve the problem of the utilization of large quantities of wood waste that occur in lumbering operations in Canada, if a local market could be found to absorb it. But charcoal, because of its bulk, cannot be transported any great distance economically and there is only a limited demand in Canada, where it is chiefly used for lighting fires and for cooking. Other uses are in the manufacture of metallurgical products, chemicals, black powder and poultry food. It is also used in the purification of water, as a decolourizer, and deodorizer.

In Europe successful attempts are being made to use producer gas from charcoal as a fuel for heavy trucks. Such a fuel is considerably cheaper than gasoline, and, if adopted in Canada, would increase the demand for charcoal.

When wood is heated in the absence of air it decomposes, evolving gases, and leaves as a residue, charcoal. The earliest known method of making charcoal was to stack wood in beehive-shaped piles and cover almost completely with leaves and earth. By kindling a fire and regulating the air supply, part of the wood is burnt producing sufficient heat to convert the remainder to charcoal. This method is still used to some extent, but in modern distillation plants charcoal is produced by placing dry wood in steel ovens which are heated externally. The gases evolved, after passing through condensers, are further processed to yield valuable by-products, acetic acid and methyl alcohol.

The total production of charcoal in Canada during the calendar year 1936 was 41,305,000 pounds, of which 31,913,000 was made in the wood distillation industry and 9,440,000 in the charcoal burning industry.

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No. 337. Fri. Sept. 2, 1938 -- Successful Indian Ranchers

Blackfoot Indians living on the Peigan Reserve in the Pincher Creek region of Alberta have made good as ranchers and farmers, and are among the most prosperous and self-reliant of Canada's Indian population. The Department of Mines and Resources, which is charged with the administration of Indian Affairs, reports that this tribe has a herd of about 2,000 Shorthorn and Hereford cattle, as well as about 2,000 horses, and 5,000 acres of their 9,000-acre reserve under cultivation.

Ranching operations on the Peigan Reserve are carried out by the Indians themselves on a co-operative basis. The cattle herd belongs to sixty-five individual owners who stage a grand roundup each summer, during which each owner's brand is tallied, and as a precaution against mange the animals are put through dipping pens under the supervision of a Government inspector. The cattle are remarkably free of disease and are among the best range herds of beef cattle in southern Alberta. On the market the Indian cattle bring premium prices, and from sales of about 400 head yearly the owners derive an annual revenue of from \$15,000 to \$20,000 at present prices. The reserve is in the shortgrass country and contains an ideal winter grazing range.



The successful transformation of these Indian people from hunters to farmers and ranchers has been accomplished within two generations. Before the coming of the white man, these Indians subsisted mainly on the great buffalo herds, but with the advance of settlement and the depletion of game resources that followed in its wake, they were left practically destitute. Fortunately their lands were suitable for agriculture and stock-raising, and it was only necessary for the Government of Canada to provide stock and equipment and establish them as farmers and ranchers under the supervision of instructors.

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No. 338. Sat. Sept. 3, 1938 -- Occupations in Relation to School Life

For the first time in the Canadian Census, an inquiry on the number of years at school appeared on the Population Schedule of the 1936 Census of the Prairie Provinces. Interest in the educational status of the gainfully occupied population has resulted in the publication of a census bulletin giving the occupations of the people in the provinces according to the number of years at school, by sex and broad age groups.

The figures show that persons with less than a high school education are found chiefly in agricultural pursuits and in semi-skilled and unskilled occupations. Clerical and kindred workers and skilled artisans represent a larger proportion of persons having attended school from nine to twelve years, or roughly with a high school education. Those with thirteen years or more of schooling, or, in the main, a college education, are engaged largely in professional, commercial and clerical pursuits, though the numbers in agricultural and in semi-skilled and unskilled occupations are appreciable.

For males almost two-thirds reported less than nine years' schooling or generally less than a high school education. Only about two-fifths of the females fell in the same educational class. The chief reason for this difference is the large number of males in primary occupations, especially agricultural, with short periods of school life. Age seems to be also a factor, the length of school life being longer for both sexes in the younger age groups than in the older.

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No. 339. Sun. Sept. 4, 1938 -- Tea A Popular Beverage

Tea is the most popular beverage in Canada, and Chinese legend has it that its virtues were discovered nearly 4,700 years ago. The earliest reference to it in European literature was found towards the end of the 16th century. First used as a medicine, it later became popular as a drink. Today it serves both purposes.

It is stated that the first tea was brought from the East to Europe in 1610 by the Dutch East India Company. Soon afterwards it was introduced into Great Britain, mainly as a curiosity, and it caught the fancy of the fashionable world. The price then ranged from about \$30 to \$50 a pound. The first sale of tea in England was advertised in 1658, the price by that time having dropped to less than \$15 a pound.

Tea grew in popularity during the 17th and 18th century, when it was still known as the "China drink." Early in the 19th century the centre of the tea industry shifted from China to India, Ceylon and the Netherlands East Indies, and the drinking of Indian tea became popular.

Canadians drink huge quantities of tea every year, as evidenced by the imports made in 1937, amounting to the immense total of 40,122,000 pounds, of which 22,826,000 was tea of India, 12,270,000 tea of Ceylon, 2,528,000 the Japanese variety, 726,000 of China and 10,710 pounds were imported direct from British East Africa.

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No. 340. Mon. Sept. 5, 1938 -- Canada's Apple Industry

It is not quite ninety years ago -- to be exact it was in 1849 -- that the first export of apples from Canada was made by packet from Nova Scotia to England. However, the cultivation of apples in Canada was made by the early settlers. Of the varieties used by the French of the early days it is believed that the only survivor of commercial importance is the Fameuse, or 'Snow Apple, a delicious fruit used for both cooking and eating.

Apple trees were planted in Nova Scotia before 1663, for in that year Pierre Martin set out a number of trees in the Annapolis Valley opposite what is now Annapolis Royal. At the time of the British occupation of Nova Scotia by the New England settlers in 1760, apple trees were found growing throughout that valley and the English took up the crop as a commercial possibility. They imported varieties from Europe. The Gravenstein, for example, was brought from England, where it had been introduced from its native home in Holstein. Many new varieties were brought in from the United States.

While the Fameuse of Quebec came from a seed brought out from France, the McIntosh Red originated at Dundela, not far from Ottawa. New Brunswick has a small apple industry, its Crimson Beauty being one of the earliest ripening apples in existence. The most recent expansion of commercial production has been in British Columbia.

The commercial production of Canada is now very large. Last year it was about fifteen million bushels.

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No. 341. Tues. Sept. 6, 1938 -- The Fur Industry

Fur farming now plays an important part in the fur trade of Canada, supplying approximately forty per cent of the total raw fur production in 1936-37. Practically all of the silver fox pelts came from the fur farms, and probably a third of the mink pelts may be credited to the farms. This phase of the fur industry has developed rapidly during the past fifteen years or more, the number of fur farms advancing from less than a thousand in 1920 to more than 8,000 at the end of 1936.

The fur trade, which at one time was predominant among Canadian industries, has receded into a less important position with the industrialization of the country and the greater development of natural resources. Nevertheless, the fur industry still plays an important part in the lives of many Canadians, the continued demand for furs of both common and luxury varieties keeping fur trappers and fur farmers actively engaged.

Canada's raw fur production during the 1936-37 season had a value of \$16,666,000 as against \$15,465,000 in the previous season and \$12,843,000 in 1934-35. These figures represent the value of the pelts of fur-bearing animals as taken by the fur trappers and fur farmers actively engaged in the business. It is quite a notable possession.

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No. 342. Wed. Sept. 7, 1938 -- Canned Food Production

The development in the production of canned foods in Canada has shown remarkable expansion since the beginning of the twentieth century. In 1900 the total value did not exceed \$8,250,000, whilst in 1930 it had increased to more than \$55,000,000 or six and one-half times as much. In 1933 the value of production dropped to \$33,000,000, and rose again to nearly \$55,000,000 in 1936.

The principal commodities used in the canning industry are: fish, fruits and vegetables, milk and meats, whilst the industry itself forms an adjunct of considerable importance to other industries, notably the tin can industry, the wooden box industry and the paper and printing industries. The development of the canned foods trade has effected great changes in the relation of foods to seasons. Fruits and vegetables of many kinds are to be had at all times of the year, not always with all the flavour of the freshly gathered product, but with much of their original freshness and flavour.

The producers in the country are provided with an enormously extended market, and the consumer in both city and country with cheap and wholesome food in great variety. The consumer also enjoys protection by frequent inspection under the "Meat and Canned Foods Act, 1907" and subsequent amendments, administered by the Health of Animals Branch of the Federal Department of Agriculture.

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No. 343. Thurs. Sept. 8, 1938 -- Wool, the Necessary Fibre

Wool, the necessary fibre, and its use for clothing goes back to where the misty curtain of time hides both the history of sheep and the history of mankind. Fabrics of wool have been found in ruins of villages inhabited in the Stone Age.

Scientists apparently agree that the ancestors of our modern sheep, when they roamed the eternal hills of Northern Africa, had a black or brown covering of coarse hair, but grew, under this natural overcoat, a fleece of soft, fine, white wool.

The Early Romans, in producing white and glossy wool for their togas, took a leaf out of the book of nature. They had overcoats of animal skins made for their sheep and four times a year these overcoats were taken off, the sheep were washed in wine, and the tangled fleeces were combed out.

When the Moors, who lived in Africa, crossed into Europe about 700 A.D. and settled in Spain, they passed through Italy and drove off flocks of Roman sheep. They crossed these sheep with the sturdier Spanish range sheep and produced the breed which today is known as Merino.

Louis XIV of France, in the seventeenth century, was presented with a flock of Merino sheep by the King of Spain, and bred what is now known as the Rambouillet sheep. Some few years ago some 800 of these sheep were imported into Canada to improve the stock of Canadian sheep.

Sheep are grown in 22 countries and there are about 200 distinct breeds. There are about 725,000,000 sheep in the world and they produce 3,879,000,000 pounds of wool. Canada has about 24,000,000 sheep.

If fibres of wool are twisted together by hand quite a passable thread can be made, and this thread can be woven into cloth on a frame made from four sticks. In this way the earliest mothers of men, sitting in the doors of their caves, surrounded

by their younger children, and awaiting the return of the father and elder boys from the hunt, made woollen cloth.

Long before Columbus discovered America the natives of British Columbia were spinning yarns from the fibres of mountain sheep and goats, and the hair of dogs, and weaving cloth on primitive hand looms.

The early French settlers in Canada found their first requirements in order to maintain existence were food, habitation and clothing. They produced their own food and built their own houses, but their clothing was supplied from France. In 1705, when supplies of clothing were cut off from Canada by a war, the clever and adaptable French Canadian made cloth from nettles and the inner bark of basswood trees. Then they were given permission to keep sheep, and with the wool from the sheep they spun yarns, wove cloths and made clothing. This was the start of the textile industry in Canada. In 1936 the output of factories in Canada included in the Woollen Textile Industries was valued at \$42,390,000, giving employment to close to 12,000 persons, with salaries and wages totalling \$10,000,000.

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No. 344. Fri. Sept. 9, 1938 -- Silk, the Queen of Fibres

Silk, the queen of fibres, produced by the silk worm in forming a cocoon inside of which to transform itself into a butterfly, was woven in China five thousand years ago.

Five thousand years ago, according to legend, Si-Ling-Chi, the Queen Consort of Hoang-Ti, Emperor of China, studied the activities of silk worms and invented the processes necessary to turn silk into cloth.

Although born five thousand years ago Si-Ling-Chi was a "new woman" because she developed the use of silk for clothing to provide industrial employment for Chinese women.

Silk culture spread from China to India and Japan about 200 B.C. According to tradition two Chinese Princesses married an Indian Prince and a Japanese Prince and as their dowery gave their husbands the secrets of silk culture.

Carefully guarded in the East, the secret of silk worm culture was brought to Europe about 552 A. D. by two Nestorian monks, who smuggled out of China a quantity of silk worm eggs concealed in hollows of their pilgrim staffs. Italy, however, is the only European country to produce any quantity of silk.

Japan, China and Italy today are the largest producers of raw silk, but nearly every manufacturing country in the world, including Canada, fabricates silk into cloth, stockings and silk goods.

One of the outstanding features of the textile situation in Canada has been the spectacular expansion of the silk industry, increasing from a total value in 1918 of \$2,452,000 (the earliest year for which statistics are available), to \$26,931,000 in 1936.

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No. 345. Sat. Sept. 10, 1938 -- Cotton, the Universal Fibre

Cotton is called the universal fibre because of its many uses in industry and households. It is a vegetable product obtained from the pod of the cotton plant and there are references to the weaving of cotton cloth in the "Rig Veda", an Indian historic classic, written 3,400 years ago.

In the Dark Ages the people of Europe knew so little about cotton that they believed cotton to be the wool of lambs that grew upon trees. At that time Europe obtained its supply of cotton cloth from India which was carried by caravans to the marts of Persia, Arabia, Palestine and Egypt, before finding its way to Europe.

When the Mohammedans in the fifteenth century captured Constantinople they cut the trade routes from India to Europe and consequently cut off the supply of cotton goods. Columbus sailed westward in search of a new trade route to India.

Columbus found cotton growing in the West Indies and the natives making cotton cloth. Later Magellan, on his voyage round the world, found the natives of Brazil using cotton. Cortez, on invading Montezuma's kingdom of Mexico, found the natives weaving beautiful and richly coloured cotton fabrics.

Europe then and today produces practically no cotton. The only cotton produced in Europe is a negligible amount grown in Bulgaria and Greece. No cotton is grown in Great Britain. Today, the North American continent is the largest producer of raw cotton in the world.

The gross value of production in Canada of the cotton textile industries was \$75,413,000 in 1936, providing employment for 20,200 persons, who were paid a total of \$16,256,000 in salaries and wages.

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No. 346. Sun. Sept. 11, 1938 -- Rayon, the Scientific Fibre

Rayon, the scientific fibre, is a creation of the chemical laboratory. Its base is obtained from wood pulp or cotton linters. It is man-made and the most modern of any textile fibre.

By the magic of the chemist, trees that grow in Canada are turned into rayon yarn which is woven into cloth or knitted into articles of apparel.

Spruce trees, usually 20 inches in diameter, are felled, cut into 30 foot logs, and floated down rivers to the pulp mill. The logs are washed, the bark removed, and then they are cut into small chips. The chips are placed in a digester and cooked by steam in the presence of acid bisulphite. The result is cellulose.

This cellulose is then made into huge sheets, like blotting paper, which are treated with caustic soda, and cut into "crumbs." These crumbs are then treated with carbon disulphide.

Now the cellulose xanthate is dissolved in water, is filtered, and is kept to "age". The solution is then pumped through a nozzle, usually of a platinum gold alloy, pierced with a number of small holes, and the fine threads of cellulose are then passed through a coagulation bath, then over a glass wheel, and then wound into a cake.

The rayon yarn is then wound from the cakes into hanks, which are washed, bleached and dried, and the yarn is ready for further manufacturing processes. Cotton linters are used as the cellulose base as an alternative to cellulose obtained from wood pulp.

The Canadian Textile Journal states that the output of rayon has increased from 2,000,000 yards in 1926 to 41,800,000 yards in 1936.

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No. 347. Mon. Sept. 12, 1938 -- Louisbourg Fortress Historical Museum

Stirring events of bygone days were recalled when the new historical museum at Louisbourg Fortress, Nova Scotia, was formally opened in the fall of 1937. Few places in the British Empire have had a more spectacular history or have exerted a greater influence on the current of British events than the old city of Louisbourg, situated on the eastern coast of Cape Breton Island. Once the proudest fortress and only walled city in North America, Louisbourg in the brief span of less than fifty years experienced all the drama and tragedy associated with centuries.

Under the provisions of the treaty of Utrecht, which brought peace between France and England in 1713, the Island of Cape Breton, together with other islands in the Gulf of St. Lawrence, was ceded to France. A settlement was established on the shores of what was known as English Harbour, and the new settlers, being French, changed this name to Louisbourg, in honour of Louis the Fourteenth, King of France. The island of Cape Breton was re-named Ile Royale. Louisbourg was subsequently fortified as a naval and military station, at an estimated cost of about six million dollars, and, styled the "Dunkirk of America," was considered impregnable.

During the period between 1720 and 1760, in which it existed as a fortified naval and military station, Louisbourg held the key to Canada. Possessing a fine harbour, it served as the headquarters for the largest fishing industry on this side of the Atlantic and as a haven for French privateers. Captured by a force of New England volunteers in 1745, Louisbourg was ceded back to France by treaty three years later. Its final capture in 1758 by British forces led to the fall of Quebec the following year and the ultimate transfer of Canada from French to British rule.

Following the capture of Louisbourg in 1758 came orders from England for its complete destruction, and for almost six months soldiers toiled with explosives, spades and levers until nothing remained of the town and citadel but a shattered group of casemates or bomb-proof shelters.

Since 1928 the Government of Canada has set aside more than three hundred acres in the vicinity of Louisbourg, which is being preserved as a historic site of national importance under the direction of the National Parks Bureau, Lands, Parks and Forests Branch, Department of Mines and Resources. Considerable excavation work has been carried out, and walls outlining a number of the more important buildings have been partially restored. During 1935-36 a museum building was constructed of native stone, which houses a large and interesting exhibit of relics relating not only to Louisbourg but to early Acadian history.

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No. 348. Tues. Sept. 13, 1938 -- The King's Privy Council

When King George of Canada visits his North American domain next summer, we are told that he will preside over the first full meeting of the Privy Council ever held in Ottawa. Conservatives and Liberals, bearded old men and active young Cabinet ministers will sit down together to take counsel, but the issues discussed will be non-controversial.

Privy Counsellors are entitled to the prefix "Honourable". There are ninety at present and the senior member is the distinguished Sir William Mulock who recently retired from the Ontario bench. He was a Cabinet minister in the Laurier administration; he became a Privy Counsellor in 1896, forty-two years ago. He will be 95 years of age on January 19 next.

Following him in seniority is Sir Charles Fitzpatrick, who will be 85 on December 19 this year. He also was a member of the Laurier Cabinet, but he was not appointed until 1902. Others of the elder statesmen by seniority are: Sir Allen Aylesworth, 1905; Rt. Hon. George P. Graham, 1907; Senator Raoul Dandurand, 1909; Rt. Hon. W. L. Mackenzie King, 1909.

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No. 349. Wed. Sept. 14, 1938 -- Aviation Gains in Canada

The principal activity of commercial aircraft in Canada during 1937 was the carriage by air of freight, passengers, and mail to the mining fields in the more remote parts of the country. The freight carried consisted largely of machinery and supplies for mines in the northern part of Quebec, Ontario, the western provinces, and the Northwest Territories. Promising new mining areas have been opened up in the Northwest Territories due to the introduction of aerial transportation, and many regions rich in mineral wealth are now within a few hours' flying time from large centres of population. Scattered throughout most of the mining country of the North are numerous lakes which provide suitable landing for aircraft with floats in summer and with skis in winter.

Apart from its importance as a means of transporting men and supplies to remote mining areas, the airplane is used to advantage in Canada for forest fire prevention work and in mapping. Marked success is reported in the use of aerial photographs for forest survey work from which good maps can be supplied in a small fraction of the time and at much less cost than ground surveys. Airplanes are also used extensively for topographical survey work, and the newer technique of surveying by means of photography from airplanes has so speeded up the field work of the map makers that they are now able to survey in a few hours that would formerly have taken months.

Commercial aviation in Canada hit a new high during 1937, when 10,627,000 miles were flown compared with 7,804,000 miles in 1936 and 7,522,000 miles in 1935. In these flights more than two million ton miles were carried in 1937 compared with a little over one million in 1936. Freight and express accounted for almost two million ton miles in 1937 and mail for 113,000 ton miles. This compares with 1,075,000 ton miles of freight and express and 89,500 ton miles of mail in 1936.

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No. 350. Thurs. Sept. 15, 1938 -- Facts About Cuba

Cuba is the largest and the most important of the islands in the Caribbean Sea and occupies a dominant position in all phases of the life of the entire group. Until 1898 it was a colony of Spain but became a free and independent republic at the close of the Spanish-American War. It is governed by an elected President, Senate and House of Representatives.

Cuba is approximately twice the size of our own province of Nova Scotia, and is divided into six provinces, Pinar del Rio, Havana, Matanzas, Santa Clara, Camaguey and Oriente. Although Cuba has numerous small rivers, none is of importance for navigation purposes except the Cauto, which is navigable for about 50 miles, and the Sagua la Grande for about 20 miles.

Cuba's population at the end of 1937 was estimated at 4,165,000. Of the total, approximately 1,200,000 were white, 1,500,000 part white, 1,200,000 Negro and the remainder Asiatics, Carib Indians, and other unclassified races. The population of the City of Havana was about 600,000. Spanish is the national language, although English is well understood and fairly widespread among the upper classes.

Cuba is not well endowed with natural resources, these being confined almost entirely to a few metallic minerals. Limited amounts of copper, chrome, manganese and iron ores and silicates are exported. Deposits of mercury, zinc, antimony, coal and asbestos exist and small quantities of gold are mined. Various kinds of tropical hardwoods, salt deposits and asphalt are the only other resources of importance. The agricultural and, to a smaller extent, the pastoral industries are the mainstay of the population. Sugar is Cuba's most important product and prosperity or adversity depend almost entirely upon the overseas market for this commodity. The island is, however, by no means self-sustaining in foodstuffs as large volumes of essential products including wheat flour, rice and lard must be imported.

Canada's trade with Cuba was worth well over \$2,500,000 in 1937-38, domestic exports totalling \$1,700,000 and imports \$800,000. Newsprint paper, rubber manufactures, seed potatoes, staves and headings, dried fish, malt and chemicals were Canada's chief commodities exported to that country, while fresh tomatoes, sugar, fruit pulp, fresh pineapples, sisal, molasses, tobacco and cigars were the leading items imported.

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No. 351. Fri. Sept. 16, 1938 -- Canadian Silk Stockings for Foreign Legs

It is a far cry from the cocoon which the tiny silkworm so carefully spins in the trays of the Japanese farmer to the stocking bag of the Canadian miss, but still further is the trip these delicate strands of silk must take when they go through mills in Canada and are sent to delight the fastidious in England, South Africa, or New Zealand, for example.

Fifteen years ago there were few in Canada who could afford the luxury of silk stockings at \$3.00 a pair. Canadian mills started to make them then, and the growth of this new branch of the textile industry is a romance of the application of the inborn skill and dexterity of Canadian textile workers to the making of a better stocking within the reach of all. What was then a luxury, produced in small quantity at a high price, has now been made an adornment which Canadian women buy at 75 cents or less and insist is a necessity. When it is remembered that in 1926 Canada made only about 200,000 dozens of silk stockings the present output is amazing. The Canadian production in 1936 was 2,347,000 dozen pairs which is over 56 million stockings.



No one has yet found a stocking which will take the place of the real silk product made from the infinitely fine strands which the silkworm believes are to be his own comfortable little nest. Canadian mills turn these tiny filaments into a flattering sheath for the most shapely limb, and do it so well that their products are known and appreciated the world over. Last year Canadian silk stockings were sold to over 30 countries, the list of which reads like a Cook's Tour of every continent. Exports in 1937 were 487,000 dozen pairs (over 11 million stockings), which means that the stockings purchased in every corner of the globe helped to provide employment for the concentrated ability of Canadian textile craftsmen in turning out stockings to please not only the discriminating "la Canadienne" but the dusky miss of India or Egypt.

No. 352. Sat. Sept. 17, 1938 -- Canada Leads in Platinum Metals

Canada produced almost 260,000 ounces of platinum and allied metals in 1937, more than half the world output of 470,000 ounces for that year. The successful development of the copper-nickel mines near Sudbury, Ont., has been largely responsible for the increased Canadian production of metals of the platinum group, as the ores of these mines contain a notable amount of platinum metals and are the chief source of the Canadian output. A few ounces are also obtained from the rivers of British Columbia and small quantities are recovered as an impure residue in the refining of gold at Trail, B. C. Since 1934 Canada has been the leader in the world's production, displacing Russia, which country previously held first place. The other principal producers are Russia, South America (Colombia), and South Africa.

During the past fourteen years the price of platinum has fallen considerably, decreasing from about six times the price of gold to approximately the same value. This reduction in price together with research on the possibilities of platinum as an industrial metal has brought about a greater use and increased demand for platinum.

Due to its high melting point and specific gravity, its freedom from oxidation at high temperatures, and its comparative immunity to acid, platinum is finding increasing use in the industrial field. In the electrical industry it is used extensively for contact points, power switches, thermostats, resistors for high temperatures, electric control apparatus and clocks, while the chemical industries use platinum for laboratory equipment, for anodes, and as a catalyst in the production of sulphuric, acetic and nitric acids. Rayon firms use platinum for spinnerets, glass manufacturers use it as a dye, and architects employ it as a plating material.

A considerable demand for platinum and platinum metals has been developed in the armament industries, where it is used for instruments, for reflectors and lamps for searchlights, and for contact points in airplane engines. As a result of these developments, the world's absorption of platinum metals increased from the low level of 75,000 ounces in 1932 to 200,000 ounces in 1934 and to approximately 450,000 ounces in 1937.

No. 353. Sun. Sept. 18, 1938 -- Yellowknife

There was a very interesting statement made by the Mines Branch the other day. It recorded that in the monthly gold production the first record of a shipment of gold from the Con mine at Yellowknife had been received.

Yellowknife, away in the Northwest Territories, lies on the north shore of Great Slave Lake at the mouth of the Yellowknife River. It is the scene of one of the



biggest gold rushes of the continent. However, it was a gold rush very different from the rush to the Klondike. To the Klondike it was the long, arduous trail on foot or with a packhorse; today men travel largely by aeroplane and the event of a rush is so swift that it is over before the general public hardly knows that it is begun.

Yellowknife combines log cabins and modern conveniences, tents and aeroplane transport. It has a dentist who fills prospectors' teeth with prospectors' gold. It is full of romance. A provincial premier has visited it.

Two hundred miles from the Arctic Circle powerful mining interests and penniless adventurers are writing a new chapter in Canadian development.

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No. 354. Mon. Sept. 19, 1938 -- New Indian Schools Built

To meet the educational requirements of Canada's increasing Indian population, five day schools were constructed last year on reserves at Restigouche, Quebec; Christian Island, Ontario; Bloodvein, Manitoba; Kinistino, Saskatchewan; and Port Simpson, British Columbia. With the exception of Kinistino, where a school was established for the first time, these schools were built to replace buildings which had become unsuitable for educational purposes. The new schools are modern in every respect, and are equipped to provide an educational program designed to meet the needs peculiar to the reserves on which they are established.

Progressive attempts have been made to bring the educational policy into closer conformity with the actual needs of the Indian children, with special emphasis on manual training and vocational instruction. Residential schools are now equipped to provide worth-while instruction in agriculture, carpentry work, boat-building, tailoring, dress-making, cooking, hand-loom weaving and physical culture. A program of vocational training is also being put into effect in rural one-room day schools where accommodation is available. In areas where the livelihood of the Indians depends largely upon the game resources, boys of teen age are afforded opportunities for practical training in hunting and trapping. The revival and advancement of Indian handicraft has been given particular attention, and the tendency and willingness of the Indians to recognize the value and distinctiveness of their arts and crafts has been most encouraging. The response of the Indians to the efforts to advance them to a position of independence and self-support has been a major factor in the success of the work.

The provision of day and residential schools has done much to advance Indian education in Canada. At present there are 277 day schools, 80 residential schools and 10 combined Indian and white schools in operation throughout the Dominion under the supervision of the Department of Mines and Resources. During the past ten years enrolments have increased from 15,400 in 1928-29 to 18,800 in 1937-38, while the percentage of attendance has advanced from 73.35 to 75.22. Enrolments at day schools in 1937-38 totalled 9,510, while 9,283 Indian children attended the residential schools.

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No. 355. Tues. Sept. 20, 1938 -- Tobacco Growing Industry

A further chapter has been written into the history of the tobacco growing industry in Canada, an enterprise which dates back to the days of the French settlement, and which now, in addition to meeting increasing demands from overseas, takes care of nearly the whole of our own tobacco requirements.

The Canadian tobacco crop of 1937 was the largest ever produced, and the quality



was exceptionally good. The acreage planted was 69,000 compared with 55,000 in the previous year, and the production ran to 71,000,000 pounds against 46,000,000.

The increased acreage was almost entirely confined to the flue-cured type, although the cigar leaf acreage in Quebec also showed an advance over 1936. The bulk of the crop is grown in Ontario.

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No. 356. Wed. Sept. 21, 1938 - Historic Sites Marked

More than 250 monuments and tablets have been erected throughout Canada during the past sixteen years to mark points of historical interest which have been declared by the Historic Sites and Monuments Board of Canada as being of outstanding national importance. An honorary advisory board, the Historic Sites and Monuments Board, composed of recognized historians, co-operates with the National Parks Bureau of the Department of Mines and Resources in the marking and preservation of historic sites, and from the Atlantic to the Pacific stirring events in the history of Canada are recalled by tablets and monuments erected by the government. The following monuments and cairns were unveiled during September:

A cut stone monument at Grand Pre, Nova Scotia, commemorating the Battle of Grand Pre which took place on February 11, 1747, when New England troops, under Colonel Arthur Noble, were surprised and defeated by French and Indians under Coulon de Villiers, who had made a forced march from Beaubassin in a blinding snowstorm. The British Commander was killed and the French leader died later of his wounds.

A cut stone monument at Baie Verte, New Brunswick, commemorating the pre-historic Indian portage which connected the Baie Verte and Missaguash rivers. This route from the Gulf of St. Lawrence to the Bay of Fundy was the chief means of communication between Quebec, Isle Royale and Chignecto.

A cairn at Fort Alexander, Manitoba, marking the site of Fort Maurepas, one of La Verendrye's trading posts. Both the Hudson's Bay Company and the North West Company located here in 1792. Only Fort Alexander, built by the former company, has survived. The unveiling of this monument formed part of the La Verendrye Bi-Centenary Celebration.

A cairn at Norway House, Manitoba, marking the site of Norway House built on Jack River in 1812-13, by the Hudson's Bay Company. It was rebuilt on this site in 1825 and was a frequent meeting-place of the Council of the Northern Department of Rupert's Land. Here the Rev. James Evans invented the Cree Syllabic System. In 1875, Treaty No. 5 was made here, whereby the Saulteaux and Swampy Crees ceded their rights in about 100,000 square miles in this vicinity.

A cairn at Fort McMurray, Alberta, commemorating the historical events associated with the Methye Portage. The earliest trade route between eastward and northward flowing waters followed the Clearwater River and the Methye Portage. It was discovered by Peter Pond in 1778 and used continuously for more than a century by fur-traders and explorers, including Sir Alexander Mackenzie, Sir John Franklin and Sir George Simpson.

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No. 357. Thurs. Sept. 22, 1938 - Films of National Parks Popular

Motion picture films of the National Parks of Canada reached a new high in popularity and enjoyed world-wide circulation last year, according to the report of the motion picture library. The distribution of national parks films has more than doubled in the past four years, advancing from 1,721 in 1934-35 to 4,026 in 1937-38.

Through the co-operation of distribution agencies film subjects were distributed last year in the United States, Great Britain, Australia, South Africa, Roumania, Norway, Alaska, Hawaii, and India, as well as throughout the Dominion of Canada. While all users of national parks films do not supply attendance reports, the attendance reported for showings in 1937-38 was well in excess of two million.

The motion picture library of the National Parks Bureau is operated as a publicity and educational medium, and contains a great variety of subjects descriptive of the magnificent scenery, recreational advantages, and wild life of the national parks. The library contains 85 complete film subjects, comprising 1,658 prints, nearly all of which are available in both 35mm. and 16mm. sizes. These films are lent to conservation societies, universities, schools, writers, lecturers, and other organizations and individuals interested in wild life conservation and in making known the many attractions of Canada's national playgrounds.

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No. 358. Pub. Sept. 23, 1938 -- Uranium

While the mineral resources of Canada seem inexhaustible the enterprise with which she is developing those resources and applying the fruits of research to the more varied uses of the minerals are equally impressive. An example is provided by uranium, of which Canada is now an important source. It is used, among many other purposes, as a colouring agent in the production of certain shades of yellow and deep orange in glazes and glass.

Uranium is obtained as a by-product in the processing of radium from pitchblende, and after the discovery and development of the rich deposits of pitchblende in the Great Bear Lake area and the erection of a refinery at Port Hope, Ontario, it entered the world markets. Its entry into the ceramic field was achieved by the co-operation of private research workers and the laboratory experts of the Department of Mines and Resources.

In recent years the popularity of the bright orange colour which it produces has increased considerably, particularly for such articles as bungalow tableware, tiles, jugs and bowls, and art pottery.

The new chemical plant for the recovery of radium, at Port Hope, Ontario, was erected by the Eldorado Gold Mines Limited. There the ore from the mine is treated. Recovery for uranium was about 90 per cent.

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No. 359. Pub. Sept. 24, 1938 -- More About Wool

A week or so ago we said something about wool and its production. Something more might be added to the store of information, for wool is one of the oldest industries in the world and it is very necessary to us in this country.

Great Britain leads the world in cloth weaving, and the main sources of the supply of the wool are Australia, New Zealand and South Africa. Until the middle of the last century Great Britain was not only the premier wool manufacturing country, but also the source of the wool on which the industry was built.

Even today the British Isles carry more sheep than any single Australian state, except New South Wales. The sheep of the Kingdom, however, are not raised primarily



for wool production, but for food. That is where Australia leads, with 112 million sheep. Next is New Zealand with 40 million, while South Africa has 35 million. These sheep, approaching the 200 million mark, produce 75 per cent of the world's clothing wool and 95 per cent of the fine merino wool which goes into international trade.

In the 1936-37 season, Australia's wool exports accounted for 43 per cent of her total income from all sources, excluding gold. In South Africa in 1936, also excluding gold, wool accounted for 41 per cent of all exports. In New Zealand, where more attention is paid to fat lambs for the table and dairy produce, wool export revenues were over 23 per cent of the total.

The production of wool in Canada, which is not a sheep country in the sense that other countries mentioned above are, is over 13 million pounds, and the export of raw wool last year was slightly over one million pounds. Wool imported into Canada in various forms such as yarn, amounted to more than 30 million pounds.

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No. 360. Sat. Sept. 25, 1938 -- Canadian Films

Last summer Sir Henry Lindsay, director of the Imperial Institute, with headquarters in London, visited Canada to deliver a series of lectures to clubs throughout the Dominion on the work of the organization of which he is the head.

When he arrived at Quebec he said adults and children in Great Britain were intensely interested in Canada and the Canadians and that interest was partly satisfied by distribution of moving picture films of the Dominion.

That was a very interesting statement to make, but he made it more emphatic by stating:

"We cannot satisfy the demand for Canadian films in the United Kingdom. We need double the number for the Empire film library which is a part of the Institute's work. The demand is very high from both adult and juvenile organizations, proving there is real interest in Canada among people of all ages in England."

Various organizations, such as transportation companies, send many educational films abroad, particularly to the United Kingdom, but the Government, under the Department of Commerce, maintains and operates a Motion Picture Bureau of its own which does remarkable work. It is constantly making moving pictures and many still pictures as well, of Canadian life and activities. It is headed by men thoroughly trained in the art, and their productions are under constant demand both at home and abroad.

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No. 361. Sun. Sept. 26, 1938 -- Canadian Sardine Industry

Sardines are young herring and not a distinct type of fish. The Canadian sardine industry is located entirely in New Brunswick, and has during the past four years exceeded in importance the lobster industry of that province, which formerly was in first place. New Brunswick sardines are sold throughout Canada and in practically every country of the world.

Sardine oil, like cod liver oil, is rich in Vitamin D, the chief difference being that in the case of the sardine the oil is distributed through the flesh, whereas

in a lean fish such as the cod, the oil is stored in the liver. In Norway the Government constantly co-operates with industry in an "Eat More Fish" campaign.

The output of the sardine industry in New Brunswick was valued at \$1,526,000 in 1937, accounting for approximately one-third of the total fisheries production of that province. Lobsters followed with a value of \$1,089,000. Other kinds of fish with values of \$100,000 and over in 1937 were herring, smelt, salmon, cod pollock and clam.

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No. 362.      Sept. 27, 1938 -- Cake of Another Age

Here are one or two ideas for the busy housewife who wants to bake a cake that will last a long time -- meaning by that, so long as the youngsters are kept away from it.

Last year an American archaeologist found a blackberry and nut cake in an Iroquois grave. The archaeologist was excavating on the site of Canawaugus, a large Indian village which existed opposite Avon on the west bank of the Genesee River. He uncovered the cake and many other relics.

That cake is one of the oldest in this part of the world. Two thousand years ago an Iroquois lady made it. Two factors preserved it for modern eyes, according to the discoverer. First, it was made largely of fruit and nuts, which lasted after the dough disappeared. Second, it was in a copper kettle, and copper carbonate from the kettle, a powerful antiseptic, sterilized and preserved the cake.

The cake was placed in the grave, along with a knife to cut it, in order that the departed spirit of the Indian might have food for the trip to Paradise.

Blackberries and nuts of several kinds are common in Canada, so that by taking a lesson from the Red Men, the modern Canadian can have a very durable cake.

The production in Canada during 1936 of biscuits, pies, cakes and pastries, other than the home-made product, was valued at \$29,553,000.

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No. 363.      Sept. 28, 1938 -- The Manx Tongue

Out in the Irish Sea, half-way between England and Ireland, the Isle of Man seems to be witnessing the passing of its ancient Manx language. A visitor to the island reports that fifteen years ago, nearly 1,000 persons out of a total population of 50,000, could speak the native tongue. By 1931 the figure had fallen to about 530 and over 60 per cent of those were 65 years of age and up. When they have passed there will apparently be little more than 200 Manx-speakers left. The language seems destined to fade away into a memory of the days when Manxmen were a race apart from the English.

A few proficientes are doing their best to stem the passing of the old language, we are told. The venerable John Kewley, archdeacon of Man, for many years read all the new promulgated laws to the ancient Parliament on Tynwald Hill in Manx, although very few of his hearers could understand him.



The old Manx race belonged, along with the Scottish and Irish, to the Goidelic branch of the Celts.

No separate classification was made in the last Dominion Census of the people of Manx origin; this was done in the Census of the Prairie Provinces in 1936, and it was found that 682 persons or 3.24 per cent of those classified as "Other British" were of Manx origin. Assuming that this percentage of the total number of "Other British" would hold true for the 1931 census, it is estimated that there were in 1931 approximately 2,025 persons of Manx origin in Canada. The total of "Other British" in Canada at the 1931 census was 62,494.

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No. 364. Thurs. Sept. 29, 1938 -- A Greenland Tragedy

When Vilhjalmer Stefansson, the Canadian Arctic explorer, announced a number of years ago that he had discovered a band of blonde natives, the sceptics scouted his tale. Discoveries made by the Danish Government and its research workers, recall the story.

By the way, Stefansson's parents were Icelanders who settled in Manitoba. He himself spent five years on one expedition into the north, and it is the longest Arctic expedition on record.

Canadians know very little about Greenland commercially except that we get cryolite from that country for our aluminium works in Quebec Province. The trade of Greenland is a Danish Government monopoly. However, Greenland was once inhabited by several thousand colonists from Norway. The Danish Government has laid bare the gruesome tale which began one thousand years ago, when Icelanders colonized the country. For five hundred years the effort had been kept up, but it ended in the death of a population estimated at between 3,000 and 5,000 souls. Norway had actual control of the Greenland colony since 1261 and it was sheer neglect that spelled the doom of its sons across the Atlantic. Today under Danish rule, the ice-free portion of Greenland has a population of about 17,000.

The question is whether the members of the ancient dying colony of Greenland sought greener pastures elsewhere or whether they mixed with Indian tribes of the north and gave them enough modification of racial appearance so that numerous members would be taken for white men today if they wore white men's apparel.

Perhaps Danish research workers will be able now to tell us more about these Norse colonists, and also build up the story of the early settlement of Eastern Canada.

Meanwhile we are getting about 133,000 cwts. of cryolite a year from Greenland -- a valuable contribution to our economic life.

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No. 365. Fri. Sept. 30, 1938 -- Maple Syrup Harvest

All reports last spring indicated that we were having an excellent maple syrup harvest. We have now the figures and it is worth while pausing a moment to note how great a value it has for the farmers who own sugar maple stands.

Although the 1938 maple syrup season was relatively short, the conditions were particularly favourable for the maple products industry. The crop was exceptionally

heavy, being estimated in terms of maple syrup as 3,300,700 gallons. This is practically double the volume of the short crop of 1,673,400 gallons in 1937 and equal to the 1929 crop, the year of peak production when the total crop was also estimated at 3,300,000 gallons in terms of maple syrup. The value of the 1938 crop is estimated at \$3,849,900, as compared with the value of the 1937 crop at \$2,245,000. However, with supplies heavy, prices in general in 1938 are lower than in 1937.

Of the 1938 crop only 10 per cent was made into sugar, as compared with 26 per cent in 1937. A decline in the proportion of syrup made into sugar is indicated in the four producing provinces, Nova Scotia, New Brunswick, Quebec, and Ontario, the decline being particularly marked in Quebec when only 12 per cent of the crop is estimated to have been made into sugar in 1938 as against 34 per cent in 1937. In New Brunswick also the proportion of production made into sugar declined from 67 per cent of the total crop in 1937 to 34 per cent in 1938. Reports from producers indicated that about one-third of the syrup would be kept for home use and the remainder sold. For sugar, it was estimated that the proportion of sales would be approximately the same as for syrup.

#### Index for Series Four

##### October 1937 to September 1938, inclusive

Accidents, A New Year's Resolution	93	Bees and Honey .....	303
- Carelessness or Fate? .....	65	- From Dixieland .....	180
- Dangers Crowd Upon Us .....	95	Bells, Gift .....	88
- Fatal .....	94	Berry Boxes .....	29
- Industrialists are Careful About	96	Bird City, A.....	73
Aeroplane, Clinic .....	76	Birds Wintering in Canada .....	335
- In The North .....	313	Births Declining .....	161
Agriculture in Canadian Schools ..	259	" "	162
- Progressive .....	292	" "	163
Agriculturists, Young .....	69	" "	164
Air Pollution .....	27	Bluenose, The Famous .....	316
Amethyst, February Birthstone ....	144	British Guiana .....	80
Ants as a Nuisance .....	199	Buffalo, Surplus .....	315
Apples, Any Hallowe'en? .....	31	Business and Education .....	263
- Canada's Industry .....	340		
- Used to Harden Steel .....	129	Cake of Another Age .....	362
Aquamarine, March Birthstone .....	179	Canals in Canada .....	6
Artists, Custodians of Beauty .....	63	Canned Food Production .....	342
Asbestos .....	101	Canning, Changes Developed By .....	168
Asphalt .....	21	- Housekeeping and .....	166
Aviation, A Brighter Side .....	242	- Inventions in the Industry .....	167
- Canada Leads in Air Freight ....	240	- Most Important Branch of .....	123
- Gains in Canada .....	349	- of Food .....	165
- Quick Development .....	241	Casein, a Milk Product .....	81
		Cattle, Outside in Winter .....	108
Barite .....	70	Charcoal from Wood Waste .....	336
Barrel Staves .....	30	Cheese, Who Ate the 1936? .....	68
Beausoleil .....	305	Children, Cost of Raising .....	186
Beaver Sanctuary .....	273	- Influence of Guardianship .....	191
- The Sociable .....	291	- Influence of the Mother .....	190
Beef Cattle .....	106	China, Chops in .....	20
- Eaters .....	104	- Wheat and Flour Situation in .....	72



Co-eds .....	62	Fish, Sturgeon .....	233
Coinage, Our New .....	1	- Systematized Industry .....	235
Construction in 1936 .....	127	- Trout, Elbow Room for .....	302
Co-operative Organizations .....	328	- Trout Nursery, A .....	53
Coronation Memories .....	59	- Varieties of .....	238
Cotton, the Universal Fibre .....	345	Fisheries of the Prairie Provinces ..	324
Crime, Fewer First Offenders .....	239	Fishing, Boats in British Columbia ..	274
- Major and Minor Offences .....	208	- British Columbia Interior .....	236
- Passing the Buck .....	206	Fishway, A .....	327
- Spare the Rod and Spoil the Child ..	204	Flax, Hemp and Jute .....	23
- Statistics Make It Clear .....	205	- Produced in Canada .....	24
- Statistics Tell Us About .....	207	Folk Songs, Canada's .....	244
Cuba, Facts About .....	350	Forest Fire Research .....	325
		- Fires .....	289
Dyes .....	55	Fur, Farming .....	341
		- Fewer Fur Coats Worn by City Men ..	172
Elevators .....	44	- Future Fur Coats .....	34
Empire Youth Sunday .....	227	- High Quality Fur .....	175
Employment, Backbone of the Nation ..	232	- Notes About .....	173
- Breadwinner, The .....	230	- " " .....	174
- Canadian Families .....	225	- Shedding the Fur Coat .....	171
- Family Man the Foundation Stone ..	226	Furniture, Canadian Styles in .....	157
- Making a Living in Canada .....	224	- Choice .....	155
- Secondary Production .....	231	- In the Home .....	154
- Where Do You Work, John? .....	49	- Machine Age in the Manufacture of ..	156
Expectation of Life, a Canadian's ..	145		
" " " " ..	146	Garnet, January Birthstone .....	103
" " " " ..	147	Garter, Order of the .....	136
" " " " ..	148	Gelatine .....	15
" " " " ..	149	Gold, Canada's Production .....	17
		- Mines in Quebec .....	326
Fall Ploughing .....	331	- Streets of .....	10
Families, Canadian .....	48	Granite .....	14
Farm Woodlots .....	293	Greases, Recovered .....	134
Father's Day .....	262	Green Gables .....	306
Fence Posts, Treated .....	321	Greenland, A Tragedy Of .....	364
Films, Canadian .....	360	Gypsum .....	307
- of National Parks .....	86		
" " " " ..	357	Hematite, March Birthstone .....	178
- Use of, in Canadian Schools .....	13	Highways, Canada's Newest .....	260
Fireplace in History, The .....	79	Historic Sites Marked .....	356
Fish, and Chips .....	295	Holly and Poinsettia .....	84
- Century-old .....	309	Home, a Security .....	229
- Cod, Tagging of .....	333	- Canadian .....	109
- Hatcheries, Dominion .....	281	- City .....	111
- In Inaccessible Waters .....	237	- Rural .....	112
- In the Movies .....	330	- Sweet Home .....	152
- Meal for Germany .....	92	Homes, Crude Affairs at First .....	153
- Microscopic Babies (Clams) .....	125	- Two Kinds of .....	110
- Million-dollar .....	268	Houses, Most Are Made of Wood .....	113
- Porpoise Menace .....	74	Housing, Canadian .....	91
- Prominent Part Played By .....	234	Hops .....	4
- Protection For .....	323	Horses for the Old Land .....	176
- Questions About .....	288		
- Sausages of .....	169	Imported Articles .....	150
- Smoking Fish at Home .....	138	" " .....	151
- Sockeye for Nanaimo River .....	128	Indian, as Coal Miner .....	158
- Stories .....	3	- Education of .....	287

Indian, From Hunter to Farmer .....	334	Occupations in Relation School Life .....	338
- Medicine .....	298	Odds and Ends .....	212
- Ranchers .....	337	" " " .....	213
- Schools for .....	354	" " " .....	243
- The Canadian, .....	286	" " " .....	267
Industry, Early Canadian .....	140	" " " .....	269
" " " .....	141	Oil, from the Maritimes .....	52
" " " .....	142	- Turner Valley .....	310
" " " .....	143	Old Age Pensions .....	285
Insulin, the Discovery of .....	25	Opal, October Birthstone .....	16
International Ties .....	35	Oxen on the Farm .....	107
Iron .....	7	Paper from Apple Tree Prunings .....	300
- Paint Box, the Iron .....	77	Pastures, Green .....	320
Ivory .....	159	Peanuts, Canada's Imports of .....	22
Japan, Canadian Products to .....	57	Pea-viner, The .....	121
- Canada's Trade With .....	58	Pemmican .....	8
- Natural Resources of .....	56	Petroleum in the North .....	301
Languages in High Schools .....	36	Phalaropes, Shore Birds .....	314
Legend of Marengo, A .....	290	Pine, Some Uses For .....	89
Lighthouses .....	33	Platinum Metals, Canada Leads In ...	352
Limestone .....	294	Plywood Market in West of England ..	181
Linemen .....	177	Point Pelee .....	283
Louisbourg Fortress .....	347	Population, Density of .....	83
Lumber Drying .....	197	- of the Prairie Provinces .....	209
Lunenburg Fleet .....	296	- " " " .....	210
Machine Age, Effect of .....	98	- " " " .....	211
Mail from Overseas .....	71	Potter, The .....	51
Manx Tongue, The .....	363	Potteries, Canadian .....	50
Maple Syrup Harvest, The .....	365	Privy Council, the King's .....	348
Meat for Early Settlers .....	105	Rabbits and Other Things .....	266
Medicinals, a Globe-Trotting Industry.	54	Racial Origins of Canadians .....	247
Mentally Sick .....	193	" " " .....	248
Mineral, Canada's Occurrences .....	270	" " " .....	249
Minerals, Industrial .....	97	" " " .....	250
Mines, Transportation to .....	312	" " " .....	251
Mining, and the Farmer .....	245	" " " .....	252
- Production .....	261	" " " .....	253
- Spirit of Co-operation in .....	99	" " " .....	254
Money, Bilingual, For Canada .....	2	" " " .....	255
- Registration of .....	47	" " " .....	256
Mop, The .....	40	" " " .....	257
Mosquitoes .....	160	" " " .....	258
Movies, Canada's First .....	35	Radios for Schools .....	13
Mutual Friendship Between Can. - U. S.	124	Radium .....	45
National Parks, the Quest for Beauty..	9	Railways, Development of .....	32
- Wild Life in .....	332	" " " .....	202
Nepheline Syenite .....	198	- First Canadian .....	201
Nickel, Peaceful Purpose of .....	246	- Good Record (re Accidents) .....	203
Occupational Trends .....	115	- Transportation By .....	200
" " .....	116	Rayon, the Scientific Fibre .....	346
" " .....	117	Rehabilitation Work .....	277
" " .....	118	" " .....	278
" " .....	119	Reindeer, Canadian .....	280
" " .....	120	Rock Wool .....	78
		Rubber Fenders .....	18
		Sardine Industry .....	361



Sawdust for Heating .....	279	Tomato Juice for the Miner .....	60
Schooling, Cost of .....	188	Topaz, November Birthstone .....	38
- More Instruction .....	189	Tourist Attractions .....	275
- Repaying the Cost of, (Youth) ....	187	Toys, Early .....	87
Schools, Private, in Canada .....	39	Trade, Building a Great Commerce ....	216
Sea Lions .....	329	- Co-operation In .....	217
- Weed .....	75	- Fair Trading .....	215
Seeds, Growing of in B. C. ....	170	- Goods from Abroad .....	220
Shanty Days .....	319	- Imported Articles .....	221
Sheep, Canadian .....	282	- " " .....	222
Shipping on the Upper Lakes .....	5	- " " .....	223
Shoes .....	90	- Leading Export Markets .....	218
Silk, Queen of Fibres .....	344	- Selling Things Abroad .....	219
- Stockings .....	351	- Why We Trade .....	214
Skiing in the Rockies .....	322	Trail Riders .....	318
Slums .....	114	Treaty Payments .....	37
Smallpox .....	297	Turnips from the United States .....	26
Snowshoes .....	139	Turquois, December Birthstone .....	66
Social Changes, Contributory .....	196		
- Life, Guiding .....	228	Uranium .....	358
- Welfare Trends .....	195		
Soldiers, Who Were the Canadian? ...	42	War Memorial, Canada's National .....	43
Sponges, Man-made .....	19	War, What It Does .....	304
Spruce .....	85	Warp, Doing Away With the .....	317
St. Andrew's .....	61	Whaling .....	182
St. Valentine .....	137	Wheat, Mixing Law .....	82
Sulphur .....	100	- Rust Resistant .....	46
Summer Field Work .....	284	White Man's Diseases .....	299
Syllabarium .....	308	Wool, Home-grown Sweaters .....	271
Synthetics .....	130	- More About Wool .....	359
" .....	131	- Necessary Fibre, The .....	343
" .....	132		
" .....	133	Yellowknife Bay, a New Settlement at.	276
		- First Gold Shipment from Con Mine..	353
Talcum, Gypsum and Graphite .....	102	Y. M. C. A. ....	64
Tea, a Popular Beverage .....	339	Youth, Dependency of .....	183
- From Ceylon .....	67	- Dependency Resulting from Defects..	192
Teachers, Salaries .....	264	- Earning Power .....	184
- Psychology and Salaries .....	265	- Gainful Occupations of .....	185
Textiles, Canada's Production .....	28	- Hostels .....	311
Thanksgiving Day .....	11	- Problems of .....	194
Tin Can .....	122	- Training .....	272
Tobacco Industry .....	355		
- Production .....	41	Zipper .....	126







Lacking Oct. and Nov. 1938





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DEPARTMENT OF  
TRADE AND COMMERCE



**A FACT A DAY ABOUT CANADA**

FROM THE

**DOMINION BUREAU OF STATISTICS**

**DECEMBER 1938**

**FIFTH SERIES**



Published by Authority of the HON. W.D. EULER, M.P.,  
Minister of Trade and Commerce.

Price 25 cents per annum



### Contents

- |  |   |
|--|---|
| 62. December.  | 77. Density of Population -<br>Law and Production -3. |
| 63. Canada's Place Names.                                    | 78. Canada and Jamaica.                               |
| 64. Canada and Salvador.                                     | 79. Early Settlers.                                   |
| 65. Garden for Peace.  | 80. When a Little Thing is a Big Thing.               |
| 66. Fort Anne.   | 81. Beaver in Cape Breton.                            |
| 67. Beekeeping in the North.                                 | 82. The Lobster Catch.                                |
| 68. Cassava.   | 83. Making of Cheese an Ancient Art -1.               |
| 69. A Prize a Day.   | 84. Making of Cheese an Ancient Art -2.               |
| 70. Wild Life Industry.                                      | 85. Canada and Malta.                                 |
| 71. Canada and Trinidad.                                     | 86. Christmas Gatherings.                             |
| 72. Early Canadian Mail.                                     | 87. The Cashew Nut.                                   |
| 73. High-Bush Blueberry.                                     | 88. Cornucopia of Corn.                               |
| 74. Consumption of Ice Cream.                                | 89. Wheat Stem Sawfly.                                |
| 75. Density of Population -<br>Fertility of the Soil -1.     | 90. British Empire Oil.                               |
| 76. Density of Population -<br>Transportation Facilities -2. | 91. Pacific Salmon.                                   |
|  | 92. Canada Looks at 1939.                             |

James Muir,  
Editor.

## A Fact a Day about Canada

from the

Dominion Bureau of Statistics

No. 62. Thurs. Dec. 1, 1938 -- December

December is the last month of the Christian calendar. It is so called from the Latin decem (ten), the month being the tenth and last of the old Roman calendar. For a long time the early Saxons called it midwinter-monath and Yule-monath, and after their conversion to Christianity heligh-monath (holy month). December then became perhaps the most loved month of the year because of the spirit of yuletide that belongs to the great holiday of Christmas on December 25th.

The birthstone of December is the turquoise, a blue stone whose name is said to come from a French word meaning Turkey. The stone was mined as far back as 5500 B. C. The oldest known jewelry is said to have been a set of bracelets of gold and turquoise which probably came from these ancient mines.

The turquoise was supposed to possess the power to protect the wearer from injury by falling, especially from horseback. Horses having a little bit of turquoise fastened on the bridle or even to the mane or tail were said to be sure-footed. Today, few religious rites of the Indians of New Mexico and Arizona take place without turquoise because of its supposed powers of healing and because it is an emblem of all beautiful and sacred things. In Tibet it is valued above all else. We value it for its colour alone. Turquoise should never come in contact with soap or grase; they discolour it.

Another blue stone which is considered the December birthstone is the lapis lazuli. The lapis lazuli has been known for centuries. In ancient Babylonia and Egypt it occupied a most important place, being mentioned before gold or other precious objects in all reports of loot brought back from vanquished nations. It was used in all kinds of jewelry, decorative objects, mosaic and inlaid work. Emperors and bishops of old Russia made luxurious use of lapis as wainscoting in palaces and pillars in cathedrals. Early in the history of art the powdered stone furnished the pigment known as ultramarine for fine oil paints.

In Canada the winter operations in the woods are in full swing in December. Much of the season's cut of logs and timber has been made and the lumbermen are preparing their sleigh roads to haul the logs to the water's edge in preparation for the spring drive down the rivers and lakes to the great mills.

The beloved Queen Alexandra was born on December 1, 1844, and died on November 20, 1925 at the age of 81. She was the grandmother of our present King George VI.

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No. 63. Fri. Dec. 2, 1938 -- Canada's Place Names

When Their Majesties come to Canada they will visit or pass through many towns, cities and villages with names reminiscent of those of Great Britain. In a large number, indeed, they are identical, and London itself has its thriving and developing counterpart on this side of the Atlantic. But Their Majesties will find also traces of Spanish, Portuguese and French, for hardy pioneers from these older countries scattered across the continent names of the lands of their birth.



But not all the place-names are imported -- not by any means. The original inhabitants of Canada the Indians, have left their permanent imprint in terms of some of the happiest names imaginable. There are memorials to the Iroquois, Hurons, Algonquins, Micmacs and other great tribes.

Some of the most interesting and picturesque parts of Nova Scotia, New Brunswick and the Gaspé Peninsula still bear names or derivatives of Micmac origin. Names of tribes, chiefs and seasoned warriors are applied to many places in Quebec and Ontario.

Hochelaga, a very ancient name in Canada, is still retained, but the identity of the place is now practically absorbed in the greatness of the metropolis of Montreal. Minaki, a delightful summer resort in the Lake of the Woods country, is a place of great natural beauty and typifies the suitability of Indian naming as the word means "Beautiful Country". Abitibi, Timagami, Mississagi, Madawaska, Shebendowan, Sheguiandah are all names of Indian origin with meanings that show the natives' aptitude in applying descriptive titles to their haunts.

Western Canada is also rich in place names of pure Indian or corruptions and compounds of Indian words. Various origins are given for many of the names by which cities, towns or natural features are known. Two names that usually arouse curiosity are Medicine Hat and Moose Jaw and many conflicting explanations are given for the application of these titles. One interpretation of the former is that during a fight between two tribes the professional hat of a Cree medicine man was lost in the river, and the latter place is said to be "the place where the white man mended the cart wheel with the jaw bone of a moose".

---

No. 64. Sat. Dec. 3, 1938 -- Canada and Salvador

Salvador is the smallest of the five Central American republics -- and by far the most densely populated of them all. The area is 13,176 square miles, or a little less than half the size of New Brunswick, but the population is 1,632,000. The capital is San Salvador, with a population of 102,000.

Salvador was part of the great conquest of Spain in America four hundred years ago and continued under the rule of that European power until 1821 when the final break-up of its vast empire came. It then formed part of the United States of Central America but in 1921 the five republics, secure in the approval of the United States, formed a new Republic of Central America.

The government of Salvador is based upon a written constitution (1864-1886). The President is elected for four years by direct vote. There is a single chamber National Assembly of 42 members, elected annually, and a Council of Ministers appointed by and responsible to the President.

The surface of the country is very mountainous, many of the peaks being volcanic. From a coast-line on the Pacific 170 miles long, it penetrates into the interior some forty miles. Much of the interior has an average altitude of 2,000 feet. The lowlands along the coast are generally hot and unhealthy, but towards the interior the altitude tempers the severity of the heat and much has been done in recent years to improve sanitary conditions and services.

Earthquakes have been frequent in the history of Salvador, the most recent being that of 1919, when great damage was done to the capital and other towns. The eastern spur of the Santa Ana Volcano forms the peak of Izalco, which is in an almost

constant state of volcanic activity and on account of its visibility from the ocean is known as "The Lighthouse of the Pacific."

The chief industry is the cultivation of coffee, which is grown under shade-trees, principally on the slopes of the volcanoes. Guatemala is the only one of these Central American republics which vies with her as an exporter of coffee. Cotton growing on a large scale was commenced in 1924, but on account of the ravages wrought by insects it was practically abandoned after two seasons. A British railway nearly 100 miles in length connects the port of Acajutla with the capital and with the important coffee centre of Santa Ana. Other short lines have been opened in recent years. There are some good motor roads and the Pan-American Airways maintain regular services. The language of the country is Spanish.

Canada's trade with Salvador is very small. During the fiscal year 1938 there were no imports, although in 1937 the amount was valued at \$23,000, the two commodities being coffee and fibre. Our exports to Salvador during the fiscal year 1938 amounted to \$41,000, which was a considerable drop from the \$111,000 in 1937. The chief commodities were wheat, inorganic chemicals, paper, rubber tires and malt.

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No. 65. Sun. Dec. 4, 1938 -- Garden for Peace

Next year a garden dedicated to the cause of peace is to be invested with all the beauty that expert gardeners can provide. It is situated in the heart of the Turtle Mountains of Manitoba and North Dakota, and a great Peace Cairn tells that it stands on the International Boundary between Canada and the United States, and bears the following inscription:

"TO GOD IN HIS GLORY. We two nations  
dedicate this garden and pledge ourselves  
that as long as man shall live we will  
not take up arms against one another".

The actual dedication took place a year or two ago, and since then engineers and horticulturists have been establishing driveways, motor roads, formal gardens, ornamental trees and shrubs, and hope to complete their task this spring.

Long before the advent of the white man the Indians named the Turtle Mountains, owing to their resemblance in outline to a shoal of scrambling turtles. They comprise an area of great beauty and everything possible had been done to make the Garden worthy of its environment. In the near future a Peace Tower will appear there, while there is an amphitheatre for meetings and debates on international affairs which is now being considerably extended.

---

No. 66. Mon. Dec. 5, 1938 -- Fort Anne

An illustration of the value of historical memorials and sites as an attraction for visitors is supplied by the records at Fort Anne National Park in Annapolis Royal, Nova Scotia. During 1938 no fewer than 17,000 people visited the place.

The site of Fort Anne is of great historical importance, not only to Canadians but to other descendants of the early colonists along the Atlantic coast of North



America. Here the first European settlement on the continent north of Mexico, known as Port Royal, or Royal Harbour of the French, was established on the shores of the Annapolis Basin, fifteen years before the Pilgrim Fathers landed at Plymouth Rock in 1620. From the time of its founding in 1605 until its capitulation in 1710, Port Royal changed hands many times between the French and English before Colonel Francis Nicholson's forces from New England finally took possession for the British. Nicholson's first act was to change the name Port Royal to Annapolis Royal in honour of the then reigning sovereign of England, Queen Anne.

Apart from its prominence in military affairs, the Port Royal of the early Acadian days made many noteworthy contributions to North American history. Under the guidance of de Monts, Champlain, and Poutrincourt, the founders of the colony, one of the first vessels to be built on the continent by Europeans unfurled its sails on Annapolis Basin, the waters of a nearby stream now called Allen's Creek turned the wheels of the first mill constructed in the New World, and the pioneers of agriculture reaped the first harvests of cereals and roots taken from the soil of Canada. Here also the first social club, "The Order of Good Time," was formed, while the surrounding hills echoed the first notes of poetic song and witnessed the performance of the first play written and staged in North America.

One of the principal points of interest in Fort Anne National Park is the museum building, a relic of British military occupation which was erected in 1797-98 by the Duke of Kent, father of Queen Victoria. It contains a wealth of historical objects and a fine library in which copies of the works of Champlain and Lescarbot and numerous old documents and papers are preserved.

---

#### No. 67. Tues. Dec. 6, 1938 - Beekeeping in the North

Just how far north is it possible to get honey in commercial quantities? We are getting to know year by year the possibilities of the Canadian north and beekeeping is one of them.

Honey production, says an official report, is one of the promising junior industries of Northern Ontario. The active season is short, but the honey-flows from the various sources are usually heavy and follow each other in rapid succession. Plants bloom profusely and produce a generous supply of nectar and pollen.

Nectar producing plants are much the same as those where beekeeping has already been established. Black alders come first, followed in succession by pussy willows, dandelions, fruit bloom, the clovers and ending with the autumn flow of white honey from fireweed.

The short season has many advantages over the long one, but it is a busy one for the keeper of the bees. The days lengthen more rapidly and mean temperature rises faster as more northern latitudes are reached. The bee colony builds up rapidly, demanding considerable vigilance on the part of the caretaker. Work during the summer months consists of adding supers for honey storage and the usual manipulations in connection with swarm preparations which, with a good strain of bees and modern methods, are not excessive.

The autumn is like the spring season in reverse. The mean temperature falls rapidly and the days shorten very quickly. The honey-flow sometimes continues until low temperatures are the order of the day with cluster-forming temperatures soon to come.

No. 68. Wed. Dec. 7, 1938 -- Cassava

Comparatively few Canadians have tasted cassava cakes, an excellent substitute for our bread, although most of us have unknowingly tasted cassareep, the boiled juice of cassava, for it is a valuable ingredient of many meat sauces of the "Worcestershire" type. We have tasted cassava also in other uses, such as the gum on a postage stamp or envelope, or as the pudding on the dinner table.

Cassava is derived from the tuberous rooted shrub manioc, of which there are two varieties, bitter and sweet. The sweet is used as a vegetable mainly but the bitter has a higher commercial value. The juice of the fresh tuber is poisonous, due to the presence of a glucoside which fermented becomes prussic acid. The cassava plant is one of the tropical rivals of the sweet potato. It not only fills the local need where it is used for food but it is commercially important in temperate countries because of its dried starchy product called tapioca. The plant grows to a height of eight feet and has large palmately divided leaves. The important part of the cassava is the root which is very much like a large parsnip and contains an acrid milky juice.

In the countries where it grows the natives boil the root, grate it and dry the pulp. From the flour thus obtained, thin, stiff cakes are made which, although not as light as our bread, are very nutritious. Boiled or baked cassava roots are standard articles of diet.

The white man first learned its uses from the Carib and other tribes who inhabited the West Indies and adjacent lands. They enjoyed the stiff white cassava biscuits. The juice, boiled to free it from the poison, becomes cassareep, a condiment which flavours, tenderizes and preserves meats. The famed "West India Pepper Pot" is an epicurean delight. The juice is also fermented and prepared as a beverage known as piwarry.

But it is in the manufacture of tapioca that the cassava is of greatest importance to us. The plant is torn to pieces and the starchy substance washed out in water and allowed to settle. The starch is heated gently on iron plates until it forms granules or the familiar round lumps of tapioca. Canadians use four million pounds of tapioca annually, most of it coming from the Dutch East Indies.

The bulk of the world's supply of cassava is at present produced in Java and Brazil; it never has been thoroughly developed as a commercial enterprise in the West Indies, its home. St. Vincent and Jamaica almost alone export, but the quantities are small. The cassava starch export from St. Vincent is less than 400,000 pounds annually. British Honduras, with Canadian capital behind it, has made a major development of this enterprise.

Canada imports between half a million and a million pounds of cassava flour annually, but the larger proportion is used in the making of explosives.

---

No. 69. Thurs. Dec. 8, 1938 -- A Prize a Day

Canadian exhibitors made an impressive showing at the 39th International Live Stock Exposition and the 20th International Grain and Hay Show at Chicago which closed last week after a stirring week's exhibition. The list of winners shows that a grand total of 365 prizes were awarded to Canadian exhibitors, comprising 17 grand championships, seven reserve championships, one trophy, 61 first prizes and 279 other prizes. Spread out over the year it might very well be described as "A prize



a day."

The grand championships won by Canadians were as follows: wheat, oats, field peas, field beans, soy beans, carload lambs, Shropshire ram, Shropshire ewe, Shropshire flock, Southdown ram, Southdown ewe, Cotswold ram, Cotswold ewe, junior mare, Shorthorn bull, junior Shorthorn bull, junior Shorthorn female, breeding-milking Shorthorn bull.

Reserve championships were: wheat, field peas, field beans, alfalfa seed, Southdown ewe, Lincoln ram, Cotswold ewe.

This is sufficient to demonstrate the high standard reached by Canadian agriculture. The list of prize winners has been issued by the Department of Agriculture. The winner of the wheat championship was F. Lloyd Rigby, of Wembley, Alberta, with his Reward wheat which weighed 67.5 pounds per bushel.

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#### No. 70. Fri. Dec. 9, 1938 -- Wild Rice Industry

Development of a wild rice industry for the Indians of the Prairie Provinces is under consideration. Officers of the Indian Affairs Branch in Manitoba, Saskatchewan and Alberta have been directed to survey the possibilities of the cultivation of wild rice by Indians in their respective provinces, and to report on the most suitable areas for the purpose. Wild rice is the oldest cereal crop harvested in Canada, having been grown by the Indians hundreds of years ago, and is an important item in the food supplies of the native population.

Present information indicates that there is a shortage of wild rice in the United States, and very high prices are being paid for the threshed and hulled rice. A band of Indians of the Fort Alexander reserve, situated on the southern part of Lake Winnipeg, had successful results in the harvesting of wild rice. They sold 20,000 pounds for which they got 18 to 25 cents a pound; one Indian alone took 100 pounds of rice to Winnipeg and sold it for \$25. Fields near Lac du Bois, Manitoba, have been under lease to a commercial enterprise which has been successfully developed in the district.

Rice thrives best along mud flats, and rivers and nature have their own way of ploughing the mud, which should be of a certain texture for best results. The stalks of the plant freeze in the ice and in the spring stalks and roots together with some of the soil are lifted up and the ice in this way "cultivates" the mud.

In spite of the fact that wild rice has been distributed to various people for the purpose of sowing it in different localities, very little of it has been grown successfully. In the Province of Manitoba certain areas have been suggested where a start might be made.

---

#### No. 71. Sat. Dec. 10, 1938 -- Canada and Trinidad

Trinidad, the most southerly of the West India Islands, has had a long and close association with Canada, especially Nova Scotia. With an area of almost 2,000 square miles, it is somewhat smaller than Nova Scotia. Next to Jamaica, it is the largest of the British West India Islands, with a population close to half

a million. Port-au-Spain, the capital and port of entry, is a very modernized city with a population of over 76,000. The island is administered by a Legislative Council consisting of the Governor as President, twelve official and thirteen unofficial members.

Several distinguished Canadian educationists, such as the Falconers (whose father was a clergyman of the Canadian Presbyterian Church in Trinidad) spent part of their boyhoods on that island. There are seven colleges for higher education, and railway lines are operated as well as a tramway in Port-au-Spain.

Fought over by Spanish, English, French and Dutch, who all prized it as one of the most beautiful jewels of the Caribbean chain, Trinidad has seen much of history and romance. Discovered by Columbus in 1498, he took possession of the island on behalf of Spain, who colonized it in 1588. The island was visited by Sir Robert Dudley and by Sir Walter Raleigh in 1595; in 1640 it was raided by the Dutch, and in 1677 and 1690 by the French. In 1783 a Royal Proclamation was issued by the Court of Madrid by which extraordinary advantages were offered to foreigners of all nations to induce them to settle in Trinidad, the sole condition imposed being that they should profess the Roman Catholic religion. The result of the proclamation was a large influx of population, augmented by many French families who left St. Domingo and elsewhere due to the French Revolution, thus causing a preponderance of the French element in a colony which never belonged to France. In 1797, Great Britain being then at war with Spain, a British expedition sailed from Martinique for Trinidad, which quickly surrendered to His Majesty's Forces, the articles for capitulation being signed by Sir R. Abercromby, Admiral Harvey, and Chacon, the Spanish Governor. In 1802 Trinidad was finally ceded to the Crown of Great Britain by the Treaty of Amiens.

Although warm and moist, the climate is healthy and hurricanes are unknown. The soil is fertile and the island heavily wooded. Trinidad furnishes the world supply of Angostura bitters.

The most striking natural feature of the island is the Pitch Lake, or Asphalt Lake, about 104 acres in extent, one of the most remarkable natural wonders of the world. The lake is solid asphalt, perhaps two hundred feet deep at its lowest point, and its consistency is the same throughout. As the huge chunks of pitch are cut out and loaded on trucks, the excavation gradually fills up. Asphalt is exported in increasing amounts each year but there seems to be no diminution in the supply. Oil is the chief mineral wealth of Trinidad. The most important vegetable products are sugar, cocoa, molasses, rum and copra. Traces of gold have been found.

Canada's trade with Trinidad and the adjacent island of Tobago is extensive. Our imports last year amounted to about one and one-half million dollars, which was not much more than half the imports of the previous year. Last year the major import was sugar, along with cocoa, coffee, molasses, cocoanuts, bananas, grapefruit and oranges.

Our exports to Trinidad amounted to \$3,806,000, the chief items being wheat flour, potatoes, oats, rubber manufactures, fish, meats, cheese and a very large variety of other commodities.

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No. 72. Sun. Dec. 11, 1938 -- Early Canadian Mail

A commemorative bronze tablet dedicated to the first postal service in Canada has been affixed to the outer wall of the Postal Terminal building on St. James Street, Montreal.

Canada's first postal service dates back to the French regime, when the letters of the Governor and the Intendant were carried by an appointed messenger, who was also permitted to carry mail entrusted to him by private persons. The fee allowed the messenger by the Intendant's commission was ten sous for a letter between Quebec and Montreal, and five sous to Three Rivers, with proportionate charges for greater or shorter distances. The first of these couriers was Pierre DaSilva, known as "the Portuguese," who received his commission from Raudot, the Intendant, in 1705.

When Canada came under British rule the first regular postal service was established in 1763 by Benjamin Franklin, then Deputy Postmaster General for the American Colonies, who opened a post office at Quebec with subordinate offices at Three Rivers and Montreal. A monthly service by courier was established between Montreal and New York, which made it possible to have the Canadian mail for overseas delivered in New York in time to be placed on outgoing packets.

In order to expedite the exchange of mails between the Canadian post offices, the postmasters were directed to provide saddle horses for the mail couriers at sixpence a league, which was just half the charge made to the public for the same distance. Orders were also issued to ferrymen along the route to carry the couriers over the rivers promptly and without charge, while captains of boats plying the St. Lawrence were instructed to deliver letters placed in their care to the nearest postmaster who would pay them for each letter. The couriers' trips between Montreal and Quebec were made each way weekly, the journey taking about thirty hours.

From this historic beginning Canada has developed a national postal service, unexcelled anywhere in the world, which handles 1,230,000,000 pieces of mail a year through more than 12,000 post offices and over almost 4,500 rural routes to approximately 250,000 widely scattered country mail boxes. Canadian mail is now conveyed rapidly by modern couriers, utilizing railway, motor, steamship and airplane transportation.

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No. 73. Mon. Dec. 12, 1938 -- High-Bush Blueberry

Here is something new from Nova Scotia. The high bush blueberry has come under cultivation. Lots of people, especially those who were reared in the country, will remember the back breaking experience when sent out to gather the delicious blueberry. Travelling around on hands and knees was a good deal of a chore.

However, the Department of Agriculture tells us that the high-bush blueberry has been harvested from wild managed areas for years.

Selection of large fruited and prolific bearing individual bushes resulted in the production of distinct types of blueberries. Propagation and cultivation methods were worked out. Later by crossing developed varieties, new hybrid varieties have been produced. As a result the cultivation of blueberries has become a well-established industry in the United States, particularly in New Jersey and Michigan.

In Canada where the high-bush blueberry is not native, except in limited areas,

very little if any commercial development has been attempted, although it is now known that some of the varieties are quite hardy and soil conditions that are suitable can be readily located.

The plants grow quite large. Some at the Dominion Experimental Station, Kentville, N. S., are six feet high and bear as much as six quarts per plant.

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No. 74. Tues. Dec. 13, 1938 -- Consumption of Ice Cream

One of the little barometers by which we gauge whether people are prosperous or not is by the consumption of ice cream, for ice cream is a good deal of a luxury. At least it is one of the things that go by the board first when the family purse is scantily filled.

Now, during the worst of the depression years the production of ice cream fell off badly. In the more prosperous years of 1929 and 1930, just before the worst years set in, the natural consumption went up to about nine and three-quarter million gallons and the wholesale value was over \$13,500,000, but in 1933, which is generally regarded as the most unhappy year, the production dropped down to 5,700,000 gallons and the value to \$7,300,000.

After that the ice cream sales became better and last year climbed back to 8,400,000 gallons and the value to \$10,200,000. Quite evidently more youngsters were getting ice cream cones.

It is quite interesting to note, according to the 1937 figures, that the people of British Columbia favour ice cream more than those of any other province. They used 1.11 gallons per capita. Ontario came next with 1.05 and Nova Scotia third with .81. Saskatchewan and Prince Edward Island kiddies apparently got least. In order after Nova Scotia came Alberta with .67 of a gallon, New Brunswick .60, Manitoba .56, Quebec .51, Prince Edward Island and Saskatchewan .43 each.

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No. 75. Wed. Dec. 14, 1938 -- Density of Population - Fertility of the Soil

Mankind derives its main sustenance from the soil. Therefore, the density of any population depends primarily upon the following factors:

- (1) the fertility of the soil upon which it lives, the life-sustaining efficiency of its ordinary products and the usual level of its production and standard of living;
- (2) the transportation facilities available to bring food to that population from outside, this ordinarily involving a corresponding obligation upon that population to produce commodities that may be exchanged for the foods which it secures from outside;
- (3) the normal maintenance of law and order both internally within the society, and externally between it and other societies, so as to assure the safe and continuous operation of such transportation facilities;



- (4) the relative economic advantage or disadvantage, under the conditions prevailing in a particular society, of the concentration of manufacturing production, commerce and administrative activities in the most populous communities.

These factors are so important, and so continuous in the influence which they have exerted throughout the course of history upon the density of population and its aggregation into urban communities, that they must be considered in some detail.

After primitive man had learned to produce "the kindly fruits of the earth" for his subsistence, the density at which he could exist depended partly upon the fertility of the soil and partly upon his skill in utilizing that fertility by cultivating the land and planting there the foods which gave the largest yields in proportion to area. Thus on alluvial lands in the valleys of the Tigris and Euphrates, the Ganges and the Yang-tse-kiang, the Nile with its rich delta, and on other fertile areas, it has been possible for densely settled purely agricultural communities to exist continuously for thousands of years. These communities feed themselves from their own produce; the inhabitants of the two last-named valleys, in fact, live largely upon rice, which is an extraordinarily prolific and nourishing grain food. It is not uncommon for agricultural communities of this type to reach a population density of one thousand or more to the square mile. Indeed, we are told that an acre of rice will normally provide the food of eight persons; the only more prolific nutriment is said to be the fruit of the bread-fruit tree, which is peculiar to the South Sea Islands.

A population of one thousand or more which obtains its food from a square mile of ground must, of course, live at a low standard of comfort, must use vegetable rather than animal foods and must have very little variety in its diet. Yet these have been for thousands of years the living conditions of the masses of the people in the areas mentioned. The Nile Valley, with its enormous population concentrated on a narrow strip of soil inundated by annual floods, is the classic instance of a densely settled country of this kind. Mention may also be made of the delta of the Ganges. In such areas the great majority of the people live in villages of a few hundred inhabitants who go daily into the fields to work, as was also the custom in the manorial villages of Europe.

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No. 76. Thurs. Dec. 15, 1938 -- Density of Population - Transportation Facilities

Early transportation facilities were very primitive and the best roads were the rivers. When in ancient times a village grew into a town or city so large that its population could no longer be provided with food from the immediate vicinity, extra food and other requirements could best be brought in by river. Thus the villages which grew into what we should call towns and cities were those situated on the banks of such rivers as the Nile, the Tigris and Euphrates, the Indus and Ganges, the Yang-tse-kiang and the Hoang-ho. The Nile, in particular, favoured the growth of larger communities, since the current would carry the river-boats northward, while the prevailing northern winds would carry the sail boats (known as dahabeahs) southward. Thus the Nile boatman of ancient times had little to do but steer and manage his sails in carrying his produce to Thebes and Memphis for market. Somewhat similar conditions prevailed on the Tigris and Euphrates, as we learn from the Laws of Hammurabi and other Babylonian writings.

Still later, when man had learned to sail the inland seas and then the open oceans, the chief cities of the ancient and the modern world continued to grow,

especially at those points where important rivers run into the sea. This has been less true since the advent of the railway, but even today there are very few cities of any consequence which are not situated on navigable waters, although our own city of Regina may be cited as an exception to this rule. While there is possibly a case for putting some other Western cities into the same category, it might be countered with the suggestion that even where rivers are today of little commercial importance, yet they were the main avenues of trade at the time when the cities were founded and are thus responsible for the original existence of aggregations of population, which later grew into cities by momentum. Even now, water transportation is generally cheaper than land transportation.

Again, the ancient city-states, like Athens and Rome, did not consider it incumbent upon them to give manufactures in return for the foodstuffs which they received from their dependent territories. They did, however, give other forms of compensation, for example, the Athenians in the days of Pericles gave commerce or protection, and the Romans, protection and government, and it may be admitted that probably to the ancient world the peace of Rome was worth the board and entertainment which the territories of the Republic and later of the Empire were obliged to provide for the people of the capital. Further, the wealthier landowners had to maintain a "town house" to be "in the swim", while in some cases, as when Peter the Great founded St. Petersburg, the nobles were simply ordered to set up establishments in the place chosen by the sovereign as his capital. Ancient Alexandria and mediaeval Venice and Genoa, on the other hand, were cities based mainly on commerce, as are such modern cities as Liverpool, Hamburg, Rotterdam, Antwerp and New Orleans, to which might be added our own Vancouver.

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No. 77. Fri. Dec. 16, 1938 -- Density of Population - Law and Production

The maintenance of law and order is a third primary requisite of the existence of great and civilized cities. When the law and order of a city cease to exist, its inhabitants either perish of starvation or migrate to the countryside where they may at least raise food for their own needs. In the Ancient World, cities declined and fell into ruins when their ruling dynasties were defeated and rendered incapable of providing food for their urban proletariates. Thus Babylon, Nineveh and Persepolis decayed. Again, upon the decline of the Roman Empire, such great cities as Rome itself, Antioch and Alexandria declined for the lack of a safe and secure food supply. In our own day, the populations of Leningrad and Moscow were greatly reduced after the War, until the Bolsheviks obtained a secure hold upon the food supplies of the peasants. Domestic peace is thus the prerequisite of the growth and the continued existence of the great cities of any nation, while international peace is the abiding interest of such a great world centre as London.

In the last century and a half, larger agglomerations of population than any previously known in history have arisen throughout the white man's world (and also in Japan) in consequence of the progress of invention, bringing with it the increasing utilization of the powers of nature in the service of man, the rise of machine industry and the specialization of functions among human beings themselves. Thus at the end of the eighteenth century great cities grew where there was cheap coal for the development of power with which to drive machinery of the factories, and in our own day we find cities growing up where supplies of cheap electricity are available for operating factory machinery. These cities, once established, have continued to attract those persons whose specialized functions have made it advisable for them to live in a densely populated area in order that they may be in the best possible position to assist those who need their services; for instance, a doctor who is a



specialist finds it necessary to practice in a locality where he will have a sufficient number of patients needing the particular type of services which he is especially competent to render. This specialization of training and of function among human beings is a potent factor in promoting the growth of large cities, and in our own country has been responsible for the expatriation of many brilliant Canadians who have found it necessary to move to some such centre as Boston, New York, Chicago or London in order to secure an adequate field for their highly specialized talents.

Among the most notable phenomena of modern economic life is that multiplication of specialized occupations which is strongly impressed upon the attention of census-takers, as it adds greatly to the difficulty of comparing the occupational distribution of the people from decade to decade. This specialization of function is important in promoting the growth of urban population, since it is chiefly in cities that the more specialized person can find a market for his services. Broadly speaking, the occupational distribution of the rural population is comparatively simple; indeed, two-thirds of the "rural" population of Canada in 1931 were engaged in agricultural occupations. On the contrary, the different occupations followed in the cities are very numerous, increasing with the size of the city. Therefore, only the largest cities provide a market for the services of the most specialized workers.

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No. 78. Sat. Dec. 17, 1938 -- Canada and Jamaica

Jamaica is the largest and in some respects the most valuable of the British West India Islands. A little more than twice the size of Prince Edward Island, it has over one million inhabitants of whom about 15,000 only are whites. The Cayman Islands, Turks and Caicos Islands and Pedro and Morant Cay, having an area of 89 square miles, are dependencies of Jamaica.

The island is very mountainous, the main range running east to west, with numerous subsidiary ranges, one of them terminating in the famous Blue Mountains in the east, the highest peak being over 7,000 feet high. There are numerous rivers and streams with a rapid fall for the most part and not navigable.

Jamaica was discovered by Columbus on his second voyage to the western world in 1494. He called it Saint Jago after the patron saint of Spain, but the new name was soon dropped in favour of the native one of *Xajmaca*, meaning "well watered" or "land of wood and water".

Withstanding two British invasions, Jamaica remained in the possession of the Spaniards for 161 years, when it fell under a third attack by a force sent by Cromwell in 1655. It remained under military jurisdiction until a regular civil government was established by Charles II in 1661. In 1670 peace was made with Spain and the title of England to Jamaica was recognized by the Treaty of Madrid.

The colony grew fast, stimulated by the wealth brought into it by the buccaneers--who made Port Royal their headquarters and storehouse. It became known as "the wickedest city in the world," but the town was engulfed in the great earthquake of 1692. Fort Charles, the only building left standing when the town slipped into the sea, was once in the charge of Nelson when he was 21. It was there, too, that the pirate Morgan had his base.

During the 18th century, the island suffered from hurricanes, earthquakes, numerous slave insurrections, as well as war with the Maroons, or mountaineers,

descendants of African slaves left by the Spaniards, who lived mainly in the east of the island among the Blue Mountains. When the slave trade was abolished in 1807, there were over 300,000 slaves in Jamaica.

The island is administered by a Governor appointed by the Crown, a Privy Council and a Legislative Council. The capital city, Kingston, has a population of 100,000. In 1907 the capital was devastated by a terrible earthquake which caused great loss of life and immense property destruction. It is now a prosperous little city of narrow streets, stately residences and here and there the strangely curved figureheads from old British frigates. No longer the swashbuckling pirates and "Gentlemen of the Coast" but nevertheless the mariners of all nations of the world still meet in the busy port of Kingston. Proud liners and cruise ships out of London, New York or Halifax, tramp cargo boats from India or Sweden, "four masters" out of Rio and romantic South Sea ports, schooners, yachts -- wanderers of the Seven Seas all meet in "Sailor Town", as the sunny port of Kingston is called.

Most of the staple products of tropical climates are raised in Jamaica. Sugar and rum are manufactured and exported; the latter is still counted the best in the world; and the coffee raised in certain districts of the Blue Mountains fetches a high price. Fruits and nuts, bananas, oranges and cocoanuts are important products. Maize and Indian corn grow luxuriantly. The Guinea grass, from four to six feet in height, grows wild, and is superior to any other for pasturage, while the woods furnish an abundance of rich dye-stuffs, drugs, and spices, and there are some rare cabinet woods.

Canada carries on an important trade with Jamaica. Last year our imports were valued at \$5,668,000, of which the chief items were sugar, coffee, bananas, cocoanuts, cocoa and oils, along with some crude petroleum. Our exports to the island totalled \$4,388,000, wheat flour alone amounting to \$1,284,000. Other leading exports were automobiles, fish, oats, potatoes, rubber, meats, cheese, processed milk and textiles.

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#### No. 79. Sun. Dec. 18, 1938 -- Early Settlers

It is becoming increasingly evident that the early history of the discovery of North America by Europeans will have to be rewritten. We have been accustomed to regard John Cabot as the discoverer of our eastern coast in 1498, six years after Columbus had sighted an island in the West Indies and saved himself the dreadful consequences of mutiny.

However, we know very definitely now that the Norsemen, great sailors as they were, had been here hundreds of years before Cabot, sailing through seas of cod, saw the shore. More than that, they penetrated far inland and it is now believed they came by way of Hudson Bay. Many relics of their stay here in the 12th century have been found.

The list of relics is as follows: The runic stone at Kensington, Minnesota, found in the roots of a tree in 1898. The axe at Norway Lake, Minn. The axe at Erdahl, Minn. The axe at Brandon, Minn. The fire steel at Climax, Minn. The hatchet at Thief River Falls, Minn. The sword at Beardmore, Ontario, 1930. The axe at Beardmore, Ontario, 1930. The shield handle at Beardmore, Ontario, 1930. The latter three all lay together 200 yards from the Blackwater River. The spearhead at Gros Cap, near Sault Ste. Marie, Ontario, on the shore of Lake Superior (1938). The sword at Jacksonport, Wisconsin, on the west shore of Lake Michigan (1912). The spearhead at Whitehall, Wisconsin. The spearhead at Sodus Bay, on the



south shore of Lake Ontario (1929).

Of the three relics found at the Great Lakes two were found in hardpan rubble, and the Jacksonport sword in sand. The Sault Ste. Marie spear rested on a rock ledge a foot or so below water.

We have believed that the Norse Vinland or Vineland was Newfoundland or Nova Scotia, or even farther south, but perhaps it was the Great Lakes district. It is on record that a Greenland ship was blown to Iceland after a voyage to Markland in 1347, and it is apparent that the Norsemen frequented the interior of North America for centuries. The first bishop to visit Vinland came in 1112 A. D., so there must have been a spiritual flock to look after in those days.

The archaeologists and statisticians will be able to tell us much more very soon, no doubt, about these early settlers and how they came to disappear.

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No. 80. Mon. Dec. 19, 1938 and so When a Little Thing is a Big Thing

It is extraordinary how often we come across what seem little things to the average man but which are really very big things to the men directly concerned. An outstanding example of this truth is contained in a Bulletin recently issued by that enterprising body, the Fisheries Department.

It has been found that when the temperature of the water cools below 34° Fahrenheit, or thereabouts, "the cod do not, and seemingly cannot, open the mouth as widely as they do in warmer water."

The explanation of the change in the cod's bite was found out by R. A. MacKenzie, one of the scientists on the staff of the federal Fisheries Research Board, through some experiments he has been conducting in connection with his studies of the cod and their habits and migrations. In these experiments captive cod have been kept for several years in tanks supplied with running salt water at the board's Atlantic Biological Station at St. Andrews, N. B., and observation has shown that in mid-winter, when the water drawn in is very cold, "these captive cod rarely, if ever, take pieces of food as large in size as they do at other times of the year when the water is warmer."

These facts have considerable value for fishermen. Fishing is done in different ocean temperatures. Size of catch depends not only upon the measure of fish abundance but upon the efficiency of fishing methods. The facts brought out by the study of the captive cod leads to the conclusion, as Mr. MacKenzie puts it, "that when fishing with baited hooks in very cold water the baits should be cut into much smaller pieces than when fishing in warmer water, and where large hooks are used in the warmer water it might be well, even, to change to a smaller size of hook in the very cold water."

The codfish kept in the St. Andrews tanks were found to consume the most, per feeding, when the water was moderately warm. When the water temperature was above 65° or as low as about 32° they would not eat at all, and it was found by observation that when kept "in water of temperature near their lower feeding limit they did have difficulty in consuming pieces of a size which would disappear at a gulp in warmer water. The size of the bite was decidedly restricted when the fish were living in the very cold water."

The catch of cod a year ago was over 152 million pounds and the value to the fishermen \$3,140,000, so that knowing how to bait best and when is no small matter.

No. 81. Tues. Dec. 20, 1938 -- Beaver in Cape Breton

The release of two colonies of beaver by park wardens along a secluded stream in Cape Breton Highlands National Park, Nova Scotia, has been reported to the Department of Mines and Resources. The colonies, comprising one family of four and one of five beaver, were obtained from the provincial government, having been shipped from the western part of Nova Scotia, where under the protection afforded them the beaver thrive in considerable numbers. On arrival at their new location, the beaver appeared in good condition, and the colonies were placed at selected points a mile apart on Roper's brook. Upon being given their freedom the animals took to the water immediately, where they were soon noticed nibbling at leaves close to the surface.

The establishment of beaver in Cape Breton Highlands National Park marks the return of these industrious animals to a region from which they had disappeared more than one hundred years ago. The beaver are among the most valued wild life citizens in other national parks throughout Canada, where they have made notable contributions as conservation agents. A master forester, the beaver constructs dams which store water, preventing droughts, floods and soil erosion.

Through his work of creating ponds and meadows the beaver provides food, moisture and shelter for countless forms of plant and animal life. Water stored aids the growth of vegetation, and the ponds serve as breeding places not only for fish but for fish food. Waterfowl find excellent nesting conditions around beaver ponds, while many other birds take advantage of the dead-tree nesting places provided by beaver flooding. The plant growth on the bottom of beaver ponds makes ideal food for raccoon, muskrat and other animals, and deer are attracted by the luxurious crops in the beaver meadows.

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No. 82. Wed. Dec. 21, 1938 -- The Lobster Catch

There is a fine old story about an Irishman who was asked if he could play the fiddle. His reply was that he didn't know because he had never tried.

That old story can be twisted around a bit to say that the only persons who don't know that they like lobster are those who have never tasted it. What a toothsome morsel it is!

As we have told you before, the lobster fisheries of the Canadian Maritimes are the biggest in the world and many people in countries beyond the seas would have to go without that delicacy were it not for the great Canadian production.

However, the point of today's story is not so much lobster as a delicious food but rather as a commodity upon which fishermen make a living for their families and how the market affects them. More people know about the effect of a low price for wheat than for lobster. Mark this, then.

The catch in the first six months of this year was 27 million pounds, which was over 800,000 more than in the same period of 1937. Yet the fishermen got less for their take. In 1937 the average price they got was \$12 per cwt., and in 1938 only \$9.

It is a low price at the best, but when it goes down 25 per cent, the song must be dule in the cottages by the sea.

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No. 83. Thurs. Dec. 22, 1938 -- Making of Cheese an Ancient Art - 1

The manufacture of cheese is so old that its origin may be said to be lost in the mists of antiquity. There does not appear to be any country or tribe in the world's history which has not made milk fat into some form of cheese. There seem to be hundreds of varieties.

Cheese is mentioned in the Bible in the Book of Chronicles, where it is written that at a time when the Israelites were at war with the Philistines, a farmer named Jesse sent his young son, David, to visit his three brothers who were in the army, and to carry to them a quantity of parched corn, but, to the captain of the company, he was enjoined to present ten small cheeses. It will be seen that while parched corn was deemed good enough for private soldiers, the commanding officer had to be regaled with such a delicacy as cheese. This, it will be remembered, was the occasion when the young David distinguished himself by killing the giant Goliath with a stone thrown from a sling.

There are favourable references in Greek classical literature to cheese, so that it must have been regarded as something superior and more delicate than the commoner foods of the times. And then there is the Arab story which tells of how an Arab filled his goatskin bottle with sweet milk one day before setting out on a long journey on his camel. At the end of a very hot day he stopped to drink his milk. On opening his bottle he was astonished to find inside a semi-soft substance, immersed in a greenish coloured liquid which had a very agreeable acid taste and he found it effective in quenching his thirst. He also discovered that the semi-soft white substance was very palatable. His mind went to work and he remembered that this milk was sweet when he put it into his goatskin bottle and had assumed this form after a day's jolting on his camel. So the art of cheese-making was born among the Arabs.

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No. 84. Fri. Dec. 23, 1938 -- Making of Cheese an Ancient Art - 2

In the recent excavations of Ur of the Chaldees, the birth place of Abraham, a mosaic frieze was discovered representing dairying scenes on a farm attached to a temple, more than 5,000 years ago (3,400 B. C.). There is a procession of cows, two calves are seen issuing from the barn door, and men sitting on low stools are milking cows. Calves duly muzzled are roped to the cows' headstalls so as to encourage them to give milk. Another part of the frieze shows two clean shaven men wearing fleece petticoats, the official dress of priests, pouring milk through a strainer into a vessel set on the ground, while two others are collecting the strained liquid into great stone jars, perhaps preparatory to making cheese.

The first forms of cheese made in Canada were naturally French varieties. They survive in what is known as Fromage Raffine and Oka, the latter being an evolution of the Port du Salut cheese in France. The art of making the British forms of cheese was brought to North America by the early settlers from the British Isles, and it was brought to Canada by the United Empire Loyalists and other British settlers. It was not, however, until 1864 that the first cheese factory was established in Canada, in Oxford County, Ontario. Since then Canadian factory cheddar cheese has come to be recognized, particularly in the United Kingdom, as unsurpassed in the world.

This year Canada produced over 121,300,000 pounds of cheddar cheese, of which almost 86,000,000 pounds were made in Ontario, 27,500,000 in Quebec, 6,000,000 in the Prairie Provinces, 4,000,000 in the Maritimes and 600,000 pounds in British Columbia.

No. 85. Sat. Dec. 24, 1938 -- Canada and Malta

Although Canada's trade relationship with Malta is not large, this little Mediterranean island has a special interest to us because of its strategic importance as an outpost of empire. Fifty-eight miles from Sicily and about 180 miles from the African coast, with a length of 17 and a breadth of nine miles, it is the headquarters of the British Mediterranean fleet. The colony of Malta includes seven islands, the chief of which are Gozo and Comino -- the site of the steamer Sultan's disaster in 1889.

Sixteen centuries before Christ, Malta was colonized by the Phoenicians, who made it a trading station. After that it was owned successively by the Greeks, Carthaginians and the Romans. During the regime of the latter, St. Paul was wrecked there. That was in 58 A. D. In the Dark Ages it was ravaged by the Vandals and Goths. Then in turn it came under the Byzantines, Moors, Aragonese, Spaniards, Knights of St. John, French and now British. Truly a remarkable history. When in possession of the Moors its commerce was destroyed and it was used mainly as a base for piratical expeditions. The Norman Count Roger of Sicily brought it under Christian rule again in 1090, and it followed the fortunes of that kingdom for the next 440 years. In 1530 it was handed over to the Knights of St. John, who made of it a stronghold of Christianity. In 1565 it sustained the famous siege, when the last great effort of the Turks was successfully withstood by Grand Master La Vallette. The Knights expended large sums in fortifying the island and in carrying out many magnificent works, until they were expelled by Napoleon in 1798. The Maltese rose against the French garrison soon afterwards, and with the assistance of some British and Neapolitan troops compelled the French to capitulate in 1800, when the islands were ceded to Great Britain, confirmed by the Treaty of Paris of 1814.

In religion the Maltese are Roman Catholics. The lower orders are mainly Punic in race. The Maltese language, which is generally spoken by all classes, is of Semitic origin and is held by some to be derived from the Carthaginian and Phoenician tongues. There is a Maltese order of nobility recognized by the Crown consisting of 29 families. There is a university, and many elementary, secondary, military and private schools. English and Maltese are the only languages taught in the elementary schools.

The climate, although not tropical, is hot in summer. The islands are highly cultivated and the principal occupation of the people is in connection with shipping.

In the commercial world Malta is especially noted for its honey and its lace. Some of the very fine embroideries which come to Canada are made by the Maltese. Our exports to the island, somewhat irregular, sometimes amount to close to \$200,000. They consist mainly of wheat flour, leather, condensed milk, machinery and automobiles.

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No. 86. Sun. Dec. 25, 1938 -- Christmas Gatherings

Apart from its religious significance, Christmas is a day of family gatherings in Canada, the day of all days in the year when the young ones who have left the parental rooftop to make their own way in the world, come back home to see the old folk and the other young ones who have not yet gone "furth of the sheiling."

The thought occurs that it would be quite nice to know how many such Christmas gatherings are taking place in Canada today. That is impossible to say, of course. But we can come fairly close to it when we realize that the very large proportion of



the family gatherings will be taking place in the homes where there are children. Married couples who have no children will quite likely pick up and go to the old home of one or other of the couple.

Now we are getting somewhere. Take the 1931 Census as a basis of information and we find that there are 2,253,000 households in Canada, but many of them are occupied by unattached men or women, living alone. There are actually 445,000 married couples occupying homes in the Dominion in which there are no children. That, incidentally, is one of the grave problems facing this country today. There are 391,000 couples with only one child, and 336,000 with only two. Of course in a good many cases there have been children but they have left home and will be back for a visit today.

However, there are 1,412,000 homes in which there are a father and mother with one or more children and it is very likely that the vast majority of these will be holding family gatherings, the old man carving the turkey quite unskilfully and his better half pouring the tea, between times admonishing the youngsters to take care of the much cherished best tablecloth.

As near as we can come to it there are about one and a half million turkeys being consumed this Christmas Day. Some people like duck, others goose, a few a buffalo steak and so on. But turkey is king.

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No. 87. Mon. Dec. 26, 1938 -- The Cashew Nut

The cashew tree is native to Brazil and probably other parts of tropical America. It certainly became widespread on the American continents and the West Indies at a very early date and for centuries past it has been growing in warm regions of the Eastern Hemisphere also. By the native people of all of these countries, it has been prized for the fleshy portion of its fruit and for the seed which is very curiously placed outside of the flesh. The seed is the Cashew Nut of commerce.

As a fruit the cashew is used in many ways in the countries in which it is grown, including dessert, fruit punch and alcoholic drinks. The fruit is very perishable and cannot be shipped long distances. It is the seed, or nut, however, which has been bringing the cashew into prominence. Processes of packing by which the nuts can be transported to any country without deterioration or insect attack have been perfected.

These nuts are now packed in a patented process in tight containers from which the air is exhausted and replaced by gases, said to be chiefly carbonic acid, in which they are perfectly preserved.

Nearly all the cashew nuts we get have come from British India and not from their original home in tropical America. The cashew grows almost as a weed in Panama and yields abundantly even in rather poor soils.

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No. 88. Tues. Dec. 27, 1938 -- Cornucopia of Corn

Some time ago Mr. Henry Ford was asked what he would do if he had a wheat surplus. His reply was that he would set half a dozen chemists to work to find out what could be done with wheat other than making flour. So far as is known, this investigation has yet to be undertaken, but if the experience of manufacturers of, say, pulp, who have found many new markets for their products, is any criterion the list of new uses might well be quite formidable.

In the case of corn, too, a wide range of utility has been devised. Here is a list of the items in which it can play a part, very different from the usual feeding functions with which it is associated: Soap, salad oils, cooking oils, yeast, edible starch, textiles, paper, laundry chemicals, adhesives, dusting powder, explosives, baking powder, cough syrup, wines, vinegar, soft drinks, brewing, calico printing, foundry work, colours, fireworks, confectionery, table syrup, corn sugar, molasses, canned food, bread, ice cream, cake frosting, chewing gum, chewing tobacco, twine, jams and jellies, leather, rayon.

If the day should ever come when corn is ousted as feed, the great agricultural countries like Canada will thus have much upon which they can rely. This country produces more than twelve million bushels of corn annually, and imports an additional eight million bushels.

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No. 89. Wed. Dec. 28, 1938 -- Wheat Stem Sawfly

The wheat stem sawfly is one of the major pests of wheat in Western Canada and is responsible for the loss of millions of bushels of wheat annually. It is a matter of general concern, states the Dominion Entomological Laboratory at Lethbridge, Alberta, that definite steps be taken to reduce this crop loss at the earliest possible moment.

The wheat stem sawfly is a native insect which originally attacked only the tall grasses. It spread from these grasses to closely allied cultivated plants, such as rye and wheat, and increased so rapidly that it is now a pest of great importance throughout the western Canadian plains. The sawflies infecting a crop come from the stubble of the previous year. Any program of control, therefore, must consist in preventing these sawflies reaching the new crop.

A trap is a strip of grain or grass, in which the sawfly will lay its eggs, planted in such a place that sawflies moving from an infested stubble field in search of suitable plants in which to lay their eggs must encounter the trap before they reach the main crop. A permanent trap is one which does not require annual seeding. Brome grass has been found to be effective in areas in which it can be grown successfully. In districts in which fields are not "stripped" to control soil drifting, brome grass traps may be established without using crop land by planting them on the road allowances and along the headlands between the fields which are treated as separate units. The practice of establishing permanent strips of brome grass around farms should be encouraged, recommends the Laboratory, even in strip-farming areas, because they will serve as traps to reduce the numbers of the sawflies which migrate from infested to uninfested fields.

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No. 90. Thurs. Dec. 29, 1938 -- British Empire Oil

This is the age of oil as a fuel for transportation vehicles and much other machinery, and it is very necessary that the British Empire should have a supply. Alberta has come into the picture quite prominently in the last year or two and has done much to increase the Empire's source. In fact the increased oil production in Alberta has raised Canada's percentage of British Empire oil production from 7.1 per cent in 1937 to 13.8 per cent in 1938. Alberta oil production increased 3,945,131 barrels to 6,742,039 in 1938 over 1937.

Trinidad, producing 17,757,325 barrels or 35.4 per cent, led the Empire in oil production.

Bahrein Island, in the Persian Gulf, produced 8,478,654 barrels or 16.9 per cent, and Burma production totalled 7,557,089 barrels or 15 per cent.

Canada came fourth with 6,944,039 barrels, or 13.8 per cent. Total Empire production was set at 50,213,804 barrels, with total world production 1,991,217,979 barrels.

The balance of Canadian production this year came from Ontario, 168,000 barrels; New Brunswick, 24,000, and Northwest Territories, 10,000 barrels.

In the ten years from 1914 to 1924, total production in Alberta was 96,504 barrels. From then on production mounted until 1931 when it reached 1,455,195. The 1931 record stood until 1937 when production totalled 2,796,908 and then this was displaced by the 1938 total. Since 1914 total oil production in Alberta has reached 20,514,341 barrels.

Turner Valley now extends 20 miles long by about a mile wide. There are now 64 producing crude wells in the valley compared with 35 at the end of 1937.

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No. 91. Fri. Dec. 30, 1938 -- Today's Fish Story - Pacific Salmon

Friday is fish day pretty much all over Canada, and so every Friday for the next few weeks we shall try to say something useful to know about the various food fishes that are taken in Canada.

The most valuable of all Canada's food fishes are the Pacific salmons which are taken in the coastal waters and rivers of British Columbia. There are several species -- Spring, Sockeye, Coho, Steelhead, Pink and Chum -- and the annual value of the British Columbia salmon catch, when processed and marketed, runs from twelve to fifteen millions of dollars. The bulk of the production is canned -- the leading variety as to quality being the Sockeye, with Coho, Chum and Pink next in order.

Pacific salmon, fresh or frozen, is available at all times, but the season when they are taken in largest quantity is from June to October. The fish vary much in size. The Spring salmon is the largest and averages 20 pounds, Sockeyes 5, Cohoes 6, Steelheads 7, Pinks 4, Chums 8.

Now this is important to remember. While the general demand is for the red-meated salmon, the paler varieties are just as palatable and similar in high food value. The Pacific salmons, according to variety, are caught by means of seine-nets, gill-nets, trap-nets and by hook-and-line.

No. 92. Sat. Dec. 31, 1938 -- Canada Looks at 1939

In a review of the past year and a forward glance at 1939, the Hon. W. D. Euler, Minister of Trade and Commerce, observed that it was timely to remember that the trade and commerce of the world, whether domestic or international, "was based on mutual confidence and good-will between man and man, between nation and nation."

After referring to the simultaneous signing of the trade agreements between Canada and the United States and between the United Kingdom and the United States which come into effect on January 1 as "an epoch-making contribution towards the improvement of international relations", he continues: "In the year that is over it has been Canada's great achievement, her high privilege, to promote that confidence and good-will by bringing the leading countries of the English-speaking world into more friendly and intimate commercial relations with each other. Canada, by insisting on her full rights under the British preferences, could have stood in the way of the negotiation of the Anglo-American Trade Agreement."

The Minister pointed out that Canada and the other Dominions of the British Commonwealth, however, preferred to surrender certain of their rights "in order to facilitate the growth of trade and commerce among the countries of the English-speaking world".

Nearly nine-tenths of Canada's external trade, he said, was conducted with Empire countries or with the United States, while a considerable proportion of the remainder was carried on with countries with which "we have always been in friendly commercial relations".

Summing up the trade and commerce of Canada, the Hon. Mr. Euler states that Canada may on many grounds anticipate a better business year in 1939, particularly in respect of her primary products".

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